



**UNSW**  
SYDNEY

# Master of Financial Technology

Respond to the technological revolution in finance



**This program guide contains information for the:**

- Master of Financial Technology
- Graduate Diploma in Financial Technology
- Graduate Certificate in Financial Technology

# Contents

Learn at UNSW. A World Leader.	01
Master of Financial Technology	02
Program overview	03
The UNSW Online experience	05
Program details	06
Entry requirements	07
Academic leadership	09
Get in touch	10
Course descriptions	11

# Learn at UNSW. A World Leader.



## #1 in Australia for Accounting and Finance

UNSW is ranked 1st in Australia for Accounting and Finance subjects and within the top 20 worldwide.

*QS World University Rankings by Subject, 2023*



## Highest salary earners

Ranked highest median salary among Go8 universities.

*2022 QILT Graduate Outcomes Survey – Longitudinal, October 2022*



## #1 in Australia for Engineering and Technology

UNSW is ranked 1st in Australia for Engineering and Technology subjects.

*QS World University Rankings by Subject, 2023*



## Globally recognised

UNSW Business School is accredited by the Association to Advance Collegiate Schools of Business (AACSB) International Business Accreditation and the EFMD Quality Improvement System (EQUIS).



## Top 20 worldwide

UNSW is ranked equal  
19th overall in the world.

*QS World University  
Rankings, 2024*

# Master of Financial Technology

Financial Technology (FinTech) professionals are in high demand worldwide. The shortage of professionals with FinTech skills is particularly challenging in Australia.

**Employer demand for the right mix of finance and technology expertise is growing faster than the Australian labour market can fill. In addition, Census reports that 66% of Australian FinTech companies are now finding it more challenging to attract talent with the right mix of skills.<sup>1</sup>**

The online Master of Financial Technology program is designed to provide you with skills in finance and technology to navigate the ongoing technological revolution in the financial services industry. In this program, you learn how to leverage financial information and technology to generate, evaluate, communicate and implement new ideas to capitalise on opportunities in the growing FinTech industry. The Master of Financial Technology is designed and delivered by Australia's top ranked school of Banking and Finance, at UNSW Business School.



## Designed and delivered with industry for industry

The program is developed with industry professionals, and validated by students as being sought after skills and competencies required by FinTech specialists.



## Build applicable real-world FinTech skills

Build knowledge of the latest technology through hands-on experience and applied learning, while understanding the full context of the FinTech landscape.



## Quality and reputation

Learn from a highly awarded and ranked global university, which provides world-class education, substantial career opportunities, extensive industry connections and a hugely successful and diverse alumni community of over 300,000.



## Accelerated learning with immediate ROI

With intakes every two months, study one course at a time, 100% online and accelerated, instantly adding value to your career and organisation.

<sup>1</sup>EY FinTech Australia Census, 2021

# Program overview

## List A – Elective Courses

1. FinTech Ecosystem and Industry Insights
2. Decentralised Finance
3. RegTech Applications for Banking and Finance
4. Technical Tools for FinTech ■
5. Problem-Solving Methods for FinTech ■ ■
6. Data Management for FinTech ■ ■
7. Robo-Advisory and Portfolio Optimisation ■ ■
8. Tech Disruption in Payments and Transfers
9. Tech Disruption in Funding and Lending
10. InsurTech Applications
11. Managing a FinTech Startup

## List B – Elective Courses

1. Financial Management
2. Managing with Digital Technology
3. Introductory Data Analysis
4. Analytics and Business
5. Managing People, Analytics and Change
6. Data Ethics
7. Financial Modelling ■
8. Portfolio Management
9. Corporate Finance
10. International Finance
11. Private Equity and Venture Capital
12. Equity Valuation
13. Fixed Income
14. Derivatives
15. Ethics and Professional Standards
16. Principles of Programming
17. Foundations of Cyber Security
18. Big Data Management
19. Foundations of Data Science

## List C – Core Course

- Applied FinTech Project ■

## Graduate Certificate

Any 3 core courses (from List A), plus 1 available elective course (from List B)

Or, any 4 courses (from List A)

## Graduate Diploma

Any 6 courses (from List A), plus 2 available elective courses (from List B)

Or, any 7 courses (from List A), plus 1 available elective course (from List B)

Or, any 8 courses (from List A)

## Masters

All 12 core courses (from List A)

Or, any 11 core courses (from List A), plus 1 available elective course (from List B)

Or, any 10 courses (from List A), plus 2 available elective courses (from List B)

View full [course descriptions](#)

- Pre-requisite: Introductory Data Analysis.
- Courses requiring programming (Python) knowledge.
- Pre-requisite: Technical Tools for FinTech.
- Capstone courses. Pre-requisite: Completion of 48 Units of Credit (UOC), which is the equivalent of 8 courses. Masters students must complete Applied FinTech Project.

*Available elective courses will vary per program and study period.*



## Not all courses are offered each Hexamester

Speak with an advisor about desired program outcomes and possible degree pathways.

Schedule a call →

# Knowledge areas



## Finance and the future

The advent and growth of technology, in all facets, is changing the way we work. Develop a comprehensive understanding of how technology is enhancing, re-imagining and disrupting financial services and markets.

Build a foundational understanding of the current financial services industry landscape and gain an insight into the impact of disruptive technological advances. Learn about the effects of advanced modelling for fiscal decision making.



## Ethics and governance

Ethical and governance considerations underpin the role of a modern FinTech professional. Individual courses within this program reflect the importance of understanding the relevant frameworks and what it means to be an ethical professional in a disruptive and innovative industry.

Understand the relevant regulatory frameworks and gain an overview of the types of requirements that apply to modern financial corporations and the core systems that are deployed to address these requirements.

Learn about key concerns emerging from crises and scandals within the banking and finance world. How regulators have implemented more stringent regulations, improved monitoring and detection capabilities, and imposed expectations to enhance detection of internal and external misconduct.



## Applied intrapreneurial and entrepreneurial capability

Skills developed across a range of courses will enable students to understand and apply key concepts and themes in context to startups and within existing innovative businesses.

Learn to navigate innovation in different environments, from startups to existing businesses. The program will cover the standard requirements for any startup including the design of a business plan, fundraising, mentoring, governance regulations related to FinTech, competitive mass required to enter spaces already dominated by large organisations, among others.

Apply key concepts and themes to real-world problems that require a technological solution. Team up with fellow students to prepare and propose a solution, which can then be presented to a FinTech accelerator for validation and discussion. The projects will be developed in collaboration with financial services companies. This provides an opportunity for you to develop and apply problem-solving skills learned in Problem Solving Methods and integrate various tools throughout the program.



# The UNSW Online experience

- We are here to support you, every step of the way, to graduate from one of the world's leading universities. Our online learning environment has been designed to seamlessly fit into your already busy schedule and you'll be able to access course resources on any device, at any time.
- Our academics are some of the best in the world and, even though you're studying online, you can expect your learning experience to be the same high standard as that of our on-campus students.
- Throughout your study journey, you will be able to turn to your Student Success Advisor, who is committed to assisting you from enrolment through to graduation. They are on-hand for all non-academic queries by phone or email.
- You will also have access to Career Success – a curated, self-paced module that provides a framework for thinking about, and taking action to implement, an effective career plan. You will also have access to Career Success – a curated, self-paced module that provides a framework for thinking about, and taking action to implement, an effective career plan. Through Career Success, you will have access to tools like Career AI (powered by VMock) and CaseCoach, and guides on crafting the perfect LinkedIn profile, resume, and cover letter.

# Program details

## 2024 Indicative domestic program fees<sup>^</sup>

Master of Financial Technology	Program code: 8433	12 courses	\$58,000
Graduate Diploma in Financial Technology	Program code: 5433	8 courses	\$38,500
Graduate Certificate in Financial Technology	Program code: 7434	4 courses	\$19,000

<sup>^</sup>All prices are listed in Australian dollars and may exceed the indicative figures listed. Total program fee is determined by individual course selection.

All prices are listed in Australian dollars and may exceed the indicative figures listed. Visit our [Fees page](#) for up-to-date information inclusive of 2024 indicative International program fees. Fees are subject to annual review by the University and may increase annually, with the new fees effective from the start of each calendar year. Indicative fees are a guide for comparison only based on current conditions and available data. You should not rely on indicative fees.

## Program intakes (Hexamesters)

### Six intakes annually

January, March, May, July, September, October

## Program duration

Each course is seven-weeks long, plus an Orientation week. UNSW Online advises a minimum of 15–20 hours of study per week. The master's program can be completed in as little as two years.

## Nested qualifications

The Master of Financial Technology also includes a Graduate Certificate in Financial Technology and a Graduate Diploma in Financial Technology. The Graduate Certificate and Graduate Diploma are both entry and exit points for the program.

For those who do not qualify for direct entry into the master's program, you may be eligible for entry into the Graduate Certificate or Graduate Diploma. You can articulate from this into the master's program (upon successful completion of the Graduate Certificate and Graduate Diploma). Alternatively, if for whatever reason you choose not to continue to complete the master's program, you can exit with a Graduate Certificate or Graduate Diploma.



Study plans and completion times might vary depending on elective choice, RPL, leave and subject availability. For more information, speak with a Student Advisor.



# Entry requirements

## UNSW's Admission Entry Calculator

To assist us in assessing your previous study and eligibility for this course, we recommend using the [UNSW Admissions Entry Calculator](#) as a guide. This calculator converts and scales the grading schemes across the world into a percentage that applies to UNSW entry requirements.

### Master of Financial Technology (8433)

A recognised bachelor degree (or equivalent qualification) with WAM of 65 or above as determined by the [UNSW Entry Calculator](#) in any of the following areas: business, commerce, information systems & technology management, information technology, computer engineering and software engineering.

### Graduate Diploma in Financial Technology (5433)

A recognised bachelor degree (or equivalent qualification) with a credit average of 65% or higher as per the [UNSW Entry Calculator](#).

OR

A WAM of 65 or above in the Graduate Certificate in Financial Technology with full credit provided for courses successfully completed.

### Graduate Certificate in Financial Technology (7434)

A recognised bachelor degree (in any discipline)

OR

5 years relevant work experience in a commercial or public service organisation related to banking, finance or technology.

Articulation pathways exist to the Graduate Diploma and Masters program if the student completes this program with a minimum WAM of 65.

### English Language

You may need to provide evidence of your English language proficiency to study at UNSW, depending on your educational background and citizenship. UNSW requires a minimum level of English language competency for enrolment. English language skills are essential for webinar comprehension and the completion of coursework, assignments and examinations.

If English is not your first language, you will need to provide proof of your English proficiency before receiving an offer to study at UNSW. You can do this by providing evidence that you meet one or more of the following criteria:

- [English language tests and university English courses](#)
- [Prior study in the medium of English](#)
- [Other qualifications](#)
- [English waivers](#)

*Eligibility for admission does not guarantee offer of a place.*

## Recognition of Prior Learning (RPL)

Your previous studies can be acknowledged as credit towards your online postgraduate studies provided that they meet relevant course requirements. If you are eligible for admission and you have undertaken previous studies at another institution, you may be eligible to apply for Recognition of Prior Learning (RPL).

Students can apply for RPL during the program application process and must ensure all relevant supporting documents are submitted for assessment if requested by Admissions, including course outlines from the same year they completed the relevant course/s as content may change over time. Courses successfully completed within the past ten years can be used for credit transfer within a program as provided within the program rules and the University rules on credit.

If completed similar courses in previous study, Master of Financial Technology students can claim up to 2 courses (12 units of credit) of RPL advanced standing. However, RPL advanced standing is not permitted for Graduate Diploma in Financial Technology or the Graduate Certificate in Financial Technology students.

■ [Find credit transfer at RPLSW](#)



# Academic Leadership



## **Dr Benjamin Loos** Master of Financial Technology

### **Key Academic**

Benjamin joined the School of Banking and Finance in 2022. Before joining UNSW he held positions as Professor for Digital Finance at Technical University of Munich, as Associate Professor at University of Technology Sydney, and as Assistant Professor at Mannheim Business School. He completed his PhD in 2015 at Goethe University Frankfurt with a thesis titled “Potential Solutions to Individual Investors’ Investment Mistakes”. He has also worked in the investment banking departments of Bank of America and HSBC.

His research is mostly in behavioral and household finance with a particular focus on financial advice, (digital) product innovations like ETFs, fintech and individual investor behavior in general. To address new fundamental questions his research is based on big proprietary datasets stemming from collaborations with banks and fintechs as well as from field- and laboratory experiments.

# Get in touch

Our Student Enrolment Advisors are here to help you with all your program and enrolment queries.



[studyonline.unsw.edu.au](https://studyonline.unsw.edu.au)



1300 974 990



[future-student@studyonline.unsw.edu.au](mailto:future-student@studyonline.unsw.edu.au)



## Have a question?

Book a 15-minute chat with a Student Advisor

Schedule a call →

# Course descriptions

## List A

FinTech Ecosystem and Industry Insights	12
Decentralised Finance	12
RegTech Applications for Banking and Finance	13
Technical Tools for FinTech	13
Problem Solving Methods for FinTech	14
Data Management for FinTech 07	
Robo Advisory and Portfolio Optimisation	15
Tech Disruption in Payments and Transfers	16
Tech Disruption in Funding and Lending	16
InsurTech Applications	17
Managing a FinTech Startup	18

## List C

Applied FinTech project	18
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## List B

Managing People, Analytics and Change	19
Data and Ethics	19
Principles of Programming	20
Foundations of Cyber Security	20
Big Data Management	21
Foundations of Data Science	21
Ethics and Professional Standards	22
Derivatives	22
Fixed Income	22
Equity Valuation	22
Private Equity and Venture Capital	23
International Finance	23
Corporate Finance	24
Portfolio Management	24
Financial Modelling	25
Analytics and Business	25
Introductory Data Analysis	26
Financial Management	26
Managing with Digital Technology	27

# FinTech Ecosystem and Industry Insights (List A)

## Course overview

This course gives an overview of the major changes that have recently occurred in the financial services industry. It includes a series of discussions of some of the main disruption concepts in this space, highlighting the main types of business models adopted, the skills required to succeed in this industry, and the future career opportunities that can still open. This course focuses on FinTech case studies, which will be backed by testimonials from industry executives who will share their experiences with the program participants Podcast setting. These executives will share practical challenges, trends that they observe in the industry, and the upcoming opportunities that they envision for a career in FinTech. These guest speakers will be from different areas of FinTech, such as crowdfunding, data mining, robo advice, payments, foreign currency transfers, regulation, among others.

# Decentralised Finance (List A)

## Course overview

This course gives students an introduction to blockchain and cryptocurrency. The course begins with a brief history and overview of this new paradigm, and it aims to highlight decentralisation as the key difference to traditional finance.

# RegTech Applications for Banking and Finance (List A)

## Course overview

This course focuses on the set of rules, controls, policies, and resolutions put in place to dictate corporate behaviour in the FinTech industry.

The last few decades have seen rapid growth in regulations, aimed at addressing key concerns emerging from crises and scandals within the banking and finance world. Regulators have implemented more stringent regulations, improved their monitoring and detection capabilities, and imposed expectations on participants to improve their detection of internal and external misconduct.

The growth in the finance industry and the move towards electronic banking needs a system-based approach to regulation management. This course is designed to provide an overview of the types of requirements that apply to modern financial corporations and the core nature of systems that are deployed to address these requirements.

# Technical Tools for FinTech\* (List A)

## Course overview

This course deals with implications of technological advances on the current and future state of the financial services industry.

It introduces computational finance and banking technology to generate applications of finance theory. The applications can be used in many different areas of FinTech, such as digital currency (Bitcoin), settlements (Blockchain), hedging, trading strategies, and financial advisory.

*\*Requires programming (Python) knowledge.*

# Problem Solving Methods for FinTech<sup>^</sup> (List A)

## Course overview

This course applies the techniques and methodologies covered in ZZBU8504 Technical Tools for FinTech to solve real problems in the financial services industry. A hands-on approach to the course helps students to develop their toolkit for solving problems in derivative valuation, risk analytics, and standard statistical modelling.

In addition, advanced topics on time-series data, sentiment analysis, and graphical visualisation methods will be covered. This course emphasises applications in finance.

# Data Management for FinTech<sup>^</sup> (List A)

## Course overview

This course covers the implications of technological advances on the current and future state of the financial services industry. It introduces the main financial databases and the methods to manage such data.

<sup>^</sup>Pre-req: completion of ZZBU8504 Technical Tools for FinTech. This is a Python-intensive course.



# Robo Advisory and Portfolio Optimisation<sup>^</sup> (List A)

## Course overview

This course examines the various algorithms used by robo-advisors to generate automated investment solutions. It covers a wide range of financial models in the areas of investment analysis, portfolio theory, portfolio risk management, and investment style analysis.

The methods examined include the Markowitz approach, the Black-Litterman model, and a mix of quantitative and qualitative methodologies. The course also examines the implementation challenges associated with these methods and discusses the disruption potential that still exists in this FinTech subdomain.

Lastly, this course analyses the most recent academic research on this topic, to better understand the promises and pitfalls of robo-advisors.

## Course project example:

The project for this course will be to create a robo-advisor from scratch then challenge students to propose relevant extensions to the baseline algorithm.

<sup>^</sup>Pre-req: completion of ZZBU8504 Technical Tools for FinTech. This is a Python-intensive course.

# Tech Disruption in Payments and Transfers (List A)

## Course overview

This course provides an in-depth exposition of payment and transfer systems as related to technological changes. Payments and transfers are one of the fastest-growing segments and are at the forefront of FinTech evolution.

The course covers a brief history of payments and transfers, starting with barter up to discussing the most recent digital advancements. This is a case study-driven course with industry practitioners providing an insight into relevant challenges and solutions. Here we cover payment gateway providers and underlying disruptive technologies, right through to the domain of digital cash messages and crypto platforms.

# Tech Disruption in Funding and Lending (List A)

## Course overview

This course deals with funding and lending from a financial perspective in the age of constant technological change. It includes the theoretical underpinnings of pricing and valuations of capital raising, funding and lending from the perspective of financial institutions and is supported by academic research.

Students then proceed to explore state-of-the-art technologies relevant in this space. Topics included, but not limited to, are IPOs, ICOs, crowdfunding, neo-banks and technological companies entering the banking sphere. These are explored in detail with the provision of real-world case studies.

Finally, the course aims to expand on previous discussions by looking at applied funding and lending use cases as seen from the customer perspective, either as an individual, small business enterprise, or a large corporation. Extensive use of academic research is used to highlight practical attributes of technological changes across capital raising, funding and lending. Guest lecturers provide constructive scenarios to enhance and enforce the main points of the topics covered.



# InsurTech Applications (List A)

## Course overview

This course aims to inspire students to launch a start-up that disrupts the sector and solves some of the challenges customers face with insurance. By sharing practical examples that bring theoretical and complex concepts to life, this course will instil passion and enthusiasm in students. These practical examples are supported by direct experiences of insurance as customers, highlighting the important role insurance plays in their lives and the significant financial opportunity there is in disrupting the sector. Applied concepts underlying what InsurTechs are and the problems they are looking to solve in the sector will enhance the students' understanding of InsurTech applications and will eventually enable a greater appreciation of the importance of insurance in customers' lives, the key pain points customers face, the role technology has in enhancing the sector and outcomes for customers, start-ups, and end customers.



### **Assessment example:**

The course concludes with a critical assessment and analysis of one InsurTech company from a financial risk management standpoint.

# Managing a FinTech Startup\* (List A)

## Course overview

This course intends to expose students to the challenges associated with creating and managing a startup in the FinTech industry. It covers the typical requirements for any startup firm, such as the design of a business plan, fundraising, mentoring, among others.

### Importantly, this course highlights:

- (i) the governance issues faced by startups in the heavily regulated FinTech space
- (ii) the competitive mass that is needed to enter into spaces already dominated by large organisations
- (iii) the design of cost-effective marketing strategies to capture early adopters, when there is typically a narrow window to scale up
- (iv) the cybersecurity and data privacy issues, which are especially crucial for FinTech firms
- (v) other issues, such as recruiting strategies, and tactics to create sustainable cash-flow profiles.

# Applied FinTech project\* (List C)

## Course overview

Over the course of your studies, you will have gained an appreciation for the vast range of opportunities that exist for innovation within the FinTech space at the intersection of financial services and technology. This capstone course provides students with an industry aligned framework for application of their cumulative FinTech skills to identify a real-world opportunity for an innovative FinTech application, and to then develop and pitch a methodology or an actual solution for implementation of that FinTech application. Students will exercise and develop their collaborative, creative, analytic and communication skills across this process.

*\*Pre-requisite: Completion of 48 Units of Credit (UOC), which is the equivalent of 8 courses. Masters students must complete Applied FinTech Project.*

### Applied Project Award:

The best applied project developed by students in the Master of Financial Technology will be awarded a prize sponsored by industry.

# Managing People, Analytics and Change (List B)

## Course overview

This course provides an understanding of the ways in which data analytics can be used to manage people and change, and also the essential role of people in analytics. Using an evidence-based approach, students explore the people-related elements of a business's analytics and technology strategies, including stakeholder and people management, power and influence, and working in cross-functional teams. We look at the ways in which data analytics both drives and supports change in organisations. Students also develop skills in designing and implementing successful organisational change processes.

# Data and Ethics (List B)

## Course overview

Data analytics takes place within an information supply chain comprising upstream sources and downstream uses of data. Within this supply chain are multiple participants, interests and power relationships, yet firms that collect and analyse data are often invisible to users. The use of data by many types of organisations has already given rise to a range of practices and outcomes that are clearly harmful to individuals or groups, leading to broad public concerns and legal ramifications.

It is therefore incumbent on data professionals to consider the ethical implications of their data generation and use activities. This includes issues such as: what questions should be asked about data and its sources?; how do downstream users of data protect or impact individuals and groups?; what are the rights of various stakeholders, including consumers?; and who owns data, particularly within secondary markets? Consideration of these implications gives rise to questions around the ethics of data (how data is generated, recorded and shared), and the ethics of algorithms (how data is interpreted), the ethics of practices (responsible data analytics).

This course will consider these issues and provides students with a set of thinking tools to help them navigate ethical dilemmas and guide decisions and behaviours. The role of organisational and industry cultures in shaping ethical (or unethical) data analytics practices will also be considered.

# Principles of Programming (List B)

## Course overview

This course provides an introduction to programming in Python and covers the following essentials:

- Program design and implementation in a high-level language, with procedural and object-oriented constructs and some functional features;
- Fundamental programming techniques, data structures and algorithms;
- Debugging and testing;
- Simulation;
- Applications in different areas, including those involving graphical user interfaces and animations.

# Foundations of Cyber Security (List B)

## Course overview

This foundational course will equip you with an understanding of cyber security concepts, nomenclature, and key current issues, practice and trends.

## Learning activities

You will analyse case studies applying cyber security principles to decision making in real world historical and contemporary scenarios.

Web-based practical work will introduce simple security vulnerabilities and exploits. No programming experience is assumed.

# Big Data Management (List B)

## Course overview

This course introduces the core concepts and technologies involved in managing big data. Topics include: characteristics of Big Data and Big Data analysis storage systems (e.g. HDFS, S3); techniques for manipulating Big Data (e.g. MapReduce, streaming, compression); programming languages (e.g. Spark,

PigLatin); query languages (e.g. Jaql, Hive); database systems (e.g. noSQL systems, HBase), and typical applications (e.g. recommender systems, dimensionality reduction, text analysis).

# Foundations of Data Science (List B)

## Course overview

This course covers the fundamentals of data science as it is applied in computer science, economics and mathematics and statistics. The course will provide an introduction to topics such as databases, data analytics, data mining, Bayesian statistics, statistical software, econometrics, machine learning and business forecasting. The course also aims to indicate the relevance of the courses that follow in the program (including electives) and their place in data science and its applications.

# Ethics and Professional Standards (List B)

## Course overview

This course describes why a high level of ethical standard is needed in investment management. It covers the six components of the Code of Ethics and the details of each of the seven Standards of Professional Conduct. It also goes through key features and scope of the Global Investment Performance Standards (GIPS), why they were created, to whom they apply to, and how to verify GIPS compliance.

# Derivatives (List B)

## Course overview

This course covers some fundamental pricing principles that apply to various derivative contracts in financial markets. It also covers the main types of derivatives contracts and valuation techniques. The course emphasises the use of derivatives in financial risk management. It includes an option market making simulation which aims to help students to gain practical knowledge about the sophisticated options market-making mechanism.

# Fixed Income (List B)

## Course overview

This course covers the pricing, hedging and risk management of fixed income. It includes analytical and numerical techniques, duration measures, the interaction between interest rate risk and credit risk, and mortgage-backed securities.

# Equity Valuation (List B)

## Course overview

This course explores techniques, models and industry practices in equity analysis and valuation. Both quantitative and fundamental analyses are covered to illustrate the work and research behind the trade recommendation reports prepared by financial analysts.



# Private Equity and Venture Capital (List B)

## Course overview

This course examines venture capital and private equity investments. In particular, it focuses on issues surrounding the funding of entrepreneurial firms that are financed by venture capital or private equity funds. The course departs from conventional investment approaches that examine risk and return of publicly listed securities, focusing on issues associated with financing and innovation intensive private businesses.

# International Finance (List B)

## Course overview

This course provides students with the knowledge required for the management of financial functions of multinational firms. In addition to building a rich theoretical grounding in international finance concepts, the course teaches you how to apply those concepts via real-world data analysis and scenario-based studies.

The course begins by exploring international monetary policy and foreign exchange markets at the macro-economic level and moves on to a theoretical understanding of exchange rate determinants. We then shift the focus from the global- to the transaction-level and learn how to identify and develop hedging strategies to deal with risk related to exchange rate and interest rate fluctuations.

With the core conceptual understanding of hedging instruments in place, we expand our knowledge to application and decision-making at the firm-level and students learn how multinational firms can invest and finance in international markets and manage related risks.

At each stage of the student journey, learning material, as well as weekly activities and assessments, are designed to build a community of inquiry and to articulate theory through real-world examples, cases or data exercises.

# Corporate Finance (List B)

## Course overview

This course explores the modern fundamentals of corporate financial decision making with a focus on the successful deployment of corporate assets, drawing on an understanding of the interests of a range of stakeholders. Hence, we consider environmental, social and governance issues -- at the same time we incorporate analyses of capital structure, payout strategies and financial forecasting concerns. The course is a blend of theory and practice, drawing on prepared review exercises as well as the real-time analysis of listed companies.

# Portfolio Management (List B)

## Course overview

This course develops a framework to understand modern investments. Participants learn to evaluate alternative investment strategies, develop a more complete understanding of the risk-return relation, and discuss recent developments in investment management. Surveys various financial markets and provides a review of the instruments used to allocate capital and manage risk. Topics include measuring risk and return, designing optimal portfolios, pricing risk, valuing equities and fixed income securities, and hedging with derivatives. The overarching goal is to prepare participants for the market challenges.

# Financial Modelling (List B)

## Course overview

Financial Modelling will explore the techniques used by analysts in the business environment to facilitate financial decision-making processes within uncertain contexts. This course aims to engender skills and confidence to effectively create and use financial models, helping students to better understand and communicate the practical value of financial models, and to build this literacy for their future work. Students will develop and extend their skills in high-level critical thinking, problem-solving, and analysis. Students will also develop a set of practical tools and techniques to help them make effective judgements about a organisation's current financial situation and future performance based on best-practice financial modelling principles.

# Analytics and Business (List B)

## Course overview

Business Analytics entails the use of data to support business decision-making. The field has emerged as a crucial element of contemporary business practice. With the amount and range of information available to organisations growing exponentially, the ability to harness this information for evidence-based management has become a key capability.

This course presents the fundamentals of implementing and managing business analytics in organisations including: decision making; business analytics concepts and frameworks; technologies and tools required for descriptive analytics, predictive analytics, and prescriptive analytics; frameworks for putting analytics to work; technologies and tools required for business analytics; the governance, oversight and business value gained from business analytics within organisations; ethical and social implications of business analytics; future directions for business analytics.

# Introductory Data Analysis (List B)

## Course overview

A key foundational step for business analytics is understanding the ways in which data can be presented and analysed. Introductory Data Analysis provides a solid basis from which data analysis techniques can be applied to solve business problems and support evidence-based decision-making, with a specific focus on the use of Microsoft Excel.

This course will cover methods such as charts, descriptive statistics, probability distributions, confidence intervals, hypothesis testing, and basic regression models. These methods will be the foundations for more advanced courses using statistical and econometric methods.

# Financial Management (List B)

## Course overview

This course introduces core concepts and principles associated with the financial management of organisations. Drawing on financial and management accounting and aspects of corporate finance, this course introduces students to core business skills including the ability to read and interpret financial statements, an understanding of sources of revenue and drivers of costs as well as insights into the ways that organisations are financed and how this impacts the business.

Students will also be introduced to principles of extended reporting, such as integrated reporting, that seek to provide insights into the financial performance of organisations but also their social impact. Students will have the opportunity to apply the concepts covered in this course to real world examples and will gain an appreciation of how these concepts can be used to help shape business decisions. By the end of the course, students will feel confident in using accounting and financial information.

# Managing with Digital Technology (List B)

## Course overview

Managing with Digital Technology aims to increase technical literacy of managers and leaders. The main objective of this course is to give managers a high-level overview of the fundamental concepts, main topics and problems in contemporary information technology and how they relate to business settings, and thus equip them to make better decisions regarding applications of technology, even if they are not technologists themselves. This course takes a top-down approach and emphasises high-level mastery of important concepts in information technology. Students who successfully complete this course will feel confident in any technology organisation and will have an appreciation for the problems in the field, how they affect or constrain business decisions and how it all works.

The course prepares students for product-management roles. Similarly, more and more industries, especially traditional service industries, are creating their own products to deliver more capabilities to their customers and require new capabilities from their managers. A successful product manager needs to master the business side of developing a product as well as be able to interact with a wide range of technical and non-technical stakeholders - from customers through to product engineers and user experience specialists.

Managing with Digital Technology equips founders to succeed in technology endeavours. Successful start-up founders will come across technology from day zero. Virtually every business idea today involves technology - often entire stacks of various technologies. Founders with a non-technical background must rely entirely on their technical co-founders, if they are lucky, or on the word of developers and other technologists they hire, to help them realise their dream. They are often faced with difficult choices and this course aims to equip them with the knowledge and confidence to make informed choices not just in business but in technology as well.