UNSW Course Outline

FINS5548 Financial Technology - 2024

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General Course Information

Course Code : FINS5548
Year : 2024
Term : Term 2
Teaching Period : T2
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : School of Banking and Finance
Delivery Mode : Multimodal
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

The implications of technological advances on the banking and finance sector are vast and constantly evolving. This course dives into how those implications can be dealt with by employing a disruptive and innovative thought process.

In this course, students will be exposed to the process of FinTech innovation and required to identify challenges and opportunities, use computational finance and banking technology (Python) and develop innovative FinTech solutions. As part of this, students will explore and apply disruption methodologies to case studies including digital currency (Bitcoin), settlements (Blockchain), hedging, trading and financial advisory.

Course Aims

This course aims to develop disruptive and innovative thinking process to enforce the notion that technological advances across the industry create spectrum of valuable opportunities, as well as to develop skills in collaboration and teamwork to be able to adapt and innovate in an increasingly technology driven world. This course is thus designed and developed for students aiming to understand the connections between banking, finance and technology.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Examine the global FinTech landscape in the context of the banking and finance ecosystem, and identify the challenges, complexities and opportunities in the process of FinTech innovation.	• PLO1 : Business Knowledge
CLO2 : Apply disruption methodologies to real-world cases in order to generate realistic FinTech ideas and solutions that respond to technological changes in industry.	• PLO1 : Business Knowledge
CLO3 : Effectively and responsibly use computational finance and banking technology applications.	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO4 : Develop and present an innovative and well-justified FinTech proposal for a customer in the banking and finance industry.	• PLO3 : Business Communication • PLO4 : Teamwork • PLO5 : Responsible Business Practice
CLO5 : Work collaboratively with peers to co-create technologically-savvy solutions to problems in the banking and finance industry.	• PLO3 : Business Communication • PLO4 : Teamwork • PLO7 : Leadership Development

Course Learning Outcomes	Assessment Item
CLO1 : Examine the global FinTech landscape in the context of the banking and finance ecosystem, and identify the challenges, complexities and opportunities in the process of FinTech innovation.	• Quizzes • Group Project
CLO2 : Apply disruption methodologies to real-world cases in order to generate realistic FinTech ideas and solutions that respond to technological changes in industry.	• Programming Exercises • Quizzes • Group Project
CLO3 : Effectively and responsibly use computational finance and banking technology applications.	• Programming Exercises
CLO4 : Develop and present an innovative and well-justified FinTech proposal for a customer in the banking and finance industry.	• Group Project
CLO5 : Work collaboratively with peers to co-create technologically-savvy solutions to problems in the banking and finance industry.	• Group Project

Learning and Teaching Technologies

Moodle - Learning Management System | Blackboard Collaborate | EdStem

Learning and Teaching in this course

This is a practical and hands on course. Teamwork is essential. Students undertake a group presentation simulating pitch proposal to open audience. The project requires all stages and steps of the proposal to be fully contemplated, from idea generation to implementation. Each student is expected to take on a role in the team and deliver as a team as well as an individual. The course will draw on concepts, problems and practical implications from textbooks, academic papers, financial press articles as well as relevant financial regulators and government agencies.

The aims of this course are:

- Develop disruptive and innovative thinking process to enforce the notion that technological advances across the industry create spectrum of valuable opportunities
- Develop skills in collaboration and teamwork to be able to adapt and innovate in an increasingly technology driven world
- This course is thus designed and developed for students aiming to understand the connections between banking, finance and technology.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Quizzes Assessment Format: Individual	40%	Start Date: See Detailed assessment description Due Date: See Detailed assessment description	• PLO1 : Business Knowledge • PLO2 : Problem Solving
Group Project Assessment Format: Group	30%	Start Date: See Detailed assessment description Due Date: See Detailed assessment description	• PLO3 : Business Communication • PLO4 : Teamwork • PLO5 : Responsible Business Practice • PLO7 : Leadership Development • PLO1 : Business Knowledge
Programming Exercises Assessment Format: Individual	30%	Start Date: See Detailed assessment description Due Date: See Detailed assessment description	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice

Assessment Details

Quizzes

Assessment Overview

This individual assessment is comprised of two quizzes, with Quiz 1 assessing material covered in Weeks 1-3 and Quiz 2 assessing material covered in Weeks 4-7. Each quiz will be made up of a series of multiple choice questions. This assessment is aimed at providing you with early feedback on your performance and understanding of the course topics.

Assesses: PLO1, PLO2

Course Learning Outcomes

- CLO1 : Examine the global FinTech landscape in the context of the banking and finance ecosystem, and identify the challenges, complexities and opportunities in the process of FinTech innovation.
- CLO2 : Apply disruption methodologies to real-world cases in order to generate realistic FinTech ideas and solutions that respond to technological changes in industry.

Detailed Assessment Description

Weight	Assessment Name	Assessment Due Date
20%	Quiz 1	Week 4
20%	Quiz 2	Week 8

Quiz #1 tests the material covered in Week 1-3. Quiz #2 tests materials covered in Week 4-7. This will be in a format of Multiple Choice Questionnaire. This is aimed to allow you to receive early feedback on your performance and understanding of covered topics.

Submission notes

See Detailed assessment description

Group Project

Assessment Overview

The Group Project involves working as part of a team of FinTech specialists to propose a solution for a company in the banking and finance industry and preparing a pitch presentation Accelerator/Incubator or internal Change Management Program. Each student is expected to take on a role in the team and to deliver as part of the team and as an individual. Further details and requirements will be made available on Moodle.

Assesses: PLO1, PLO3, PLO4, PLO5, PLO7

Course Learning Outcomes

- CLO1 : Examine the global FinTech landscape in the context of the banking and finance ecosystem, and identify the challenges, complexities and opportunities in the process of FinTech innovation.
- CLO2 : Apply disruption methodologies to real-world cases in order to generate realistic FinTech ideas and solutions that respond to technological changes in industry.
- CLO4 : Develop and present an innovative and well-justified FinTech proposal for a customer in the banking and finance industry.
- CLO5 : Work collaboratively with peers to co-create technologically-savvy solutions to problems in the banking and finance industry.

Detailed Assessment Description

Weight	Assessment Name	Assessment Due Date
30%	FinTech Proposal	Week 10

Teamwork is essential component of current workplace. As a team of finTech specialists you propose solution for one of your companies, prepare pitch presentation for Accelerator/ Incubator or internal Change Management Program. Small groups (5 students) will be formed around Week 2. By default groups are formed following the alphabetical order. Each student is expected to take on a role in the team and deliver as a team as well as an individual. Group presentation is assessed on group component (30%). The team members are responsible to decide on team's governance structure and member's role allocation. Further details on group formation and tips on how to make a good sales pitch presentation will be posted on Moodle.

Submission notes

See Detailed assessment description

Programming Exercises

Assessment Overview

This individual assessment is comprised of two programming exercises, Python 1 and Python 2. Using Python, you will be required to construct technological solutions to real-world case studies by applying disruption methodologies in a form of base machine learning models. Further details and requirements will be made available on Moodle.

Assesses: PLO1, PLO2, PLO3, PLO5

Course Learning Outcomes

- CLO2 : Apply disruption methodologies to real-world cases in order to generate realistic FinTech ideas and solutions that respond to technological changes in industry.
- CLO3 : Effectively and responsibly use computational finance and banking technology applications.

Detailed Assessment Description

Weight	Assessment Name	Assessment Due Date
15%	Python 1	Week 5
15%	Python 2	Week 9

Pything programming quizzes and iLab exercises allowing students to construct technological solutions to real world case study in PropTech through the application of disruption methodologies in a form of base machine learning models. We seek to expose intermediate level Python programming skills in the context of FinTech.

Submission notes

See Detailed assessment description

General Assessment Information

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Grading Basis

Standard

Requirements to pass course

In order to pass this course students must:

- Achieve a composite mark of at least 50 out of 100

- Engage actively in course learning activities and attempt all assessment requirements
- Meet any additional requirements specified in the assessment details
- Meet the specified attendance requirements of the course (see Schedule section)

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 20 May - 26 May	Other	Week 0
Week 1 : 27 May - 2 June	Seminar	Introduction to the World of FinTech
Week 2 : 3 June - 9 June	Seminar	FinTech Innovation & Disruption
Week 3 : 10 June - 16 June	Seminar	FinTech Infrastructure
Week 4 : 17 June - 23 June	Seminar	Current Finance and Banking Ecosystem
Week 5 : 24 June - 30 June	Seminar	Distributed Markets and RegTech
Week 6 : 1 July - 7 July	Seminar	Revision
Week 7 : 8 July - 14 July	Seminar	Behavioural FinTech
Week 8 : 15 July - 21 July	Seminar	Applied ML & AI in Finance
Week 9 : 22 July - 28 July	Seminar	BlockChain and Crypto
Week 10 : 29 July - 4 August	Seminar	Opportunities and Applications

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Course Resources

Prescribed Resources

Moodle course website

The website for this course is on Moodle. All materials will be posted there and discussion forums will be available for your use.

Lecture Notes and Reading List

Seminar notes and reading materials will be posted on Moodle. There is only one reading required for each lecture, the rest consists of optional supporting and supplementary readings.

Course Evaluation and Development

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students

and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Juraj Hric					No	Yes

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the key policies and support page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the key policies and

support page. For PG Research PLOs, including MPDBS, please refer to the UNSW HDR Learning Outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Students studying remotely who have exams scheduled between 10pm and 7am local time, are also able to apply for special consideration to sit a supplementary exam at a time outside of these hours.

Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable. To apply, and for further information, see Special Consideration on the UNSW Current Students page.

Special consideration applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application.

Please note the following:

1. Applications can only be made through Online Services in myUNSW (see the UNSW Current

Students page). Applications will not be accepted by teaching staff. The lecturer-in-charge/ course coordinator will be automatically notified when your application is processed.
2. Applying for special consideration does not automatically mean that you will be granted a supplementary exam or other concession.
3. If you experience illness or misadventure in the lead up to an exam or assessment, you must submit an application for special consideration, either prior to the examination taking place, or prior to the assessment submission deadline, except where illness or misadventure prevent you from doing so.
4. If your circumstances stop you from applying before your exam or assessment due date, you must apply within 3 working days of the assessment or the period covered by your supporting documentation.
5. Under the UNSW Fit To Sit/Submit rule, if you sit the exam/submit an assignment, you are declaring yourself well enough to do so and are cannot subsequently apply for special consideration.
6. If you become unwell on the day of – or during – an exam, you must stop working on your exam, advise your course coordinator or tutor and provide a medical certificate dated within 24 hours of the exam, with your special consideration application. For online exams, you must contact your course coordinator or tutor immediately via email, Moodle or chat and advise them you are unwell and submit screenshots of your conversation along with your medical certificate and application.
7. Special consideration requests do not allow the awarding of additional marks to students.

Further information on Business School policy and procedure can be found under “Special Consideration” on the key policies and support page.

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. An assignment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the ‘wrong’ assignment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be

provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.
- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

QUALITY ASSURANCE

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be

used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.