POLYU POSTGRADUATE PROGRAMMES IN

ACCOUNTING AND FINANCE

MSc in Accounting and Finance Analytics

(Mixed-mode)

2023-2024

Programme Requirement Document

Programme Code: 21052-FAM/PAM

THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學

PolyU 理大商學院 Business School
Innovation-driven Education and Scholarship

School of ACCOUNTING & FINANCE 會計及金融學院

AACSB ACCREDITED

EQUIS ACCREDITED

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Version: August 2023

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MSc in Accounting and Finance Analytics Programme Web Page
https://www.polyu.edu.hk/af/study/MAFA

PolyU Student Handbook Webpage Address
http://www.polyu.edu.hk/ar

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Saturday, Sundays & Public Holidays:	Closed

FOREWORD

It is our pleasure to welcome you to the Master of Science in Accounting and Finance Analytics programme offered by the School of Accounting and Finance at The Hong Kong Polytechnic University.

This programme aims to provide you with a solid foundation in the key areas of accounting and finance, together with the knowledge and skills in applying technology and data analytics to these areas. Through studying this programme, you will be able to keep up with the latest data analytics applications and skills.

This Programme Requirement Document contains important information that is of direct relevance to your studies. You are strongly advised to read it carefully and use it as a guide for working out your study plan.

We wish you an enjoyable and rewarding experience with the University.

With warmest regards

Professor Nancy SU
Head and Professor
School of Accounting and Finance

August 2023

Academic calendar 2023/24

The Hong Kong Polytechnic University
Academic Calendar 2023/24 (by Semester Week)

Month	Week	Mon	Tue	Wed	Thurs	Fri	Sat	Sun	Sem. Week	Events	General Holidays
Aug 2023	--	28	29	30	31	1	2	3	--		
Sept	1	**4**	5	6	7	8	9	10	1	**4 Sept: Sem. 1 teaching commences** 4 - 16 Sept: Add/Drop Period for Sem. 1	
	2	11	12	13	14	15	16	17	2		
	3	18	19	20	21	22	23	24	3		
Oct	4	25	26	27	28	29	30	1	4	29 Sept: Mid-Autumn Festival (all evening classes/exams suspended)	30 Sept: The day following the Chinese Mid-Autumn Festival
	5	2	3	4	5	6	7	8	5		2 Oct: The day following National Day
	6	9	10	11	12	13	14	15	6		
	7	16	17	18	19	20	21	22	7		
	8	23	24	25	26	27	28	29	8		23 Oct: Chung Yeung Festival
Nov	9	30	31	1	2	3	4	5	9		
	10	6	7	8	9	10	11	12	10		
	11	13	14	15	16	17	18	19	11		
	12	20	21	22	23	24	25	26	12		
Dec	13	27	28	29	30	1	**2**	3	13	**2 Dec: Sem. 1 teaching ends**	
	14	4	5	6	7	8	9	10	Exam.	4 - 6 Dec: Revision Days for Sem. 1	
	15	11	12	13	14	15	16	17		7 - 22 Dec: Examination Period for Sem. 1	
	16	18	19	20	21	22	23	24		22 Dec: Winter Solstice (all evening classes/exams suspended)	
	17	25	26	27	28	29	30	31	Exam. result processing	24 Dec: Christmas Eve (all evening classes/exams suspended)	25 - 26 Dec: Christmas Day and the first weekday after Christmas Day
Jan 2024	18	1	2	3	4	5	6	7			1 Jan: The first day of January
	19	8	9	10	11	12	13	14			
	20	**15**	16	17	18	19	20	21	1	**15 Jan: Sem. 2 teaching commences**	
	21	22	23	24	25	26	27	28	2	15 - 27 Jan: Add/Drop Period for Sem. 2	
Feb	22	29	30	31	1	2	3	4	3		
	23	5	6	7	8	9	10	11	4	9 Feb: Lunar New Year's Eve (all evening classes/exams suspended)	10 - 13 Feb: Lunar New Year Holidays
	24	12	13	14	15	16	17	18	Lunar New Year Break	10 - 18 Feb: Lunar New Year Break (all day-time and evening classes suspended)	
	25	19	20	21	22	23	24	25	5		
Mar	26	26	27	28	29	1	2	3	6		
	27	4	5	6	7	8	9	10	7		
	28	11	12	13	14	15	16	17	8		
	29	18	19	20	21	22	23	24	9		
	30	25	26	27	28	29	30	31	10		29 Mar - 1 Apr: Easter Holidays
Apr	31	1	2	3	4	5	6	7	11		4 Apr: Ching Ming Festival
	32	8	9	10	11	12	13	14	12		
	33	15	16	17	18	19	**20**	21	13	**20 Apr: Sem. 2 teaching ends**	
	34	22	23	24	25	26	27	28	Exam.	22 - 24 Apr: Revision Days for Sem. 2	
May	35	29	30	1	2	3	4	5		25 Apr - 11 May: Examination Period for Sem. 2	1 May: Labour Day
	36	6	7	8	9	10	11	12			
	37	13	14	15	16	17	18	19	Exam. result processing		15 May: The Birthday of the Buddha
	38	20	21	22	23	24	25	26			
Jun	39	**27**	28	29	30	31	1	2	1	**27 May: Summer Term teaching commences** 27 May - 1 Jun: Add/Drop Period for Summer Term	
	40	3	4	5	6	7	8	9	2		
	41	10	11	12	13	14	15	16	3		10 Jun: Tuen Ng Festival
	42	17	18	19	20	21	22	23	4		
	43	24	25	26	27	28	29	30	5		1 Jul: The HKSAR Establishment Day
Jul	44	1	2	3	4	5	6	7	6		
	45	8	9	10	11	12	**13**	14	7	**13 Jul: Summer Term teaching ends**	
	46	15	16	17	18	19	20	21	Exam.	15 - 20 Jul: Examination Period for Summer Term	
	47	22	23	24	25	26	27	28			
Aug	48	29	30	31	1	2	3	4	Exam. result processing		
	49	5	6	7	8	9	10	11			
	50	12	13	14	15	16	17	18			
	51	19	20	21	22	23	24	25			
	52	26	27	28	29	30	31	1		**1 Sept: Academic Year 2023/24 ends**	

General Holidays (tentative for 2024)

Important dates on assessment:

	Semester 1	Semester 2	Summer Term
Finalisation of all subject assessment results	9-Jan	21-May	30-Jul
Finalisation of overall assessment results	17-Jan	29-May	7-Aug
Announcement of overall assessment results	18-Jan	30-May	8-Aug

July 2022

PART I: GENERAL INFORMATION

1 PROGRAMME OVERVIEW

The advancement of information technology has made a great impact on the way of doing business and the practices in the accounting and finance profession. At the same time, the applications of data analytics have become increasingly important and significantly affected almost every business sector and industry. With the widespread application of emerging new digital technology to the accounting and finance profession, there is a need to equip students with the training of technological skills and knowledge to cope with the demands of the business community.

The Master of Science in Accounting and Finance Analytics is a conversion programme designed for graduates to develop a broad understanding of the accounting and finance disciplines and the applications of technology to these disciplines.

2 PROGRAMME AIMS AND OBJECTIVES

The programme aims to provide students with a combination of core knowledge in accounting and finance and skills in applying data analytics and technology to the related practices. It facilitates practitioners in accounting and finance to keep up with the latest data analytics applications and skills.

The programme emphasizes:

- Knowledge and skills in data analytics.
- Core knowledge in accounting and finance.
- Applications of data analytics in accounting and finance.
- Systematic training and development of data analytics skills and capability in solving business problems in accounting and finance.
- Capitalizing on opportunities offered by big data in solving accounting, finance and business problems.

3 PROGRAMME LEARNING OUTCOMES AND LEARNING OBJECTIVES

Programme Learning Outcomes provide a broad description of the knowledge, skills, intellectual abilities and behaviours to be developed in all students. Underpinning each Learning Outcome, there is one or more Learning Objectives that set out specifically what students are expected to achieve or perform upon completion of the programme:

(i) Evaluate accounting and finance issues
Leaning Objective 1:
To use the conceptual frameworks needed to evaluate contemporary issues about accounting and finance disciplines.

(ii) Understand technological methods
Learning Objective 2:
To understand the fundamental quantitative and technological methods in accounting and finance.

(iii) Apply technology and data analytics skills

Learning Objective 3:
To apply technology and data analytics skills to solve accounting and finance problems faced in real-life situations in an ethical manner.

4 ENTRANCE REQUIREMENTS

The minimum entrance requirement for this award is:

- A Bachelor's degree;
- Preference will be given to applicants with a business degree, who are equipped with some fundamental training in computing or graduates with a background in computing, science or engineering.

Interested applicants with little or no working experience are encouraged to apply.

If you are not a native speaker of English, and your Bachelor's degree or equivalent qualification is awarded by institutions where the medium of instruction is not English, you are expected to fulfil the University's minimum English language requirement for admission purpose. Please refer to the "Admission Requirements" section for details.

5 PROGRAMME STRUCTURE

5.1 Programme Information

Programme Code and Title:
21052 Master of Science in Accounting and Finance Analytics

Award:
Master of Science in Accounting and Finance Analytics

Medium of Instruction:
English

5.2 Credit Requirements

Students are required to obtain the credit requirements specified below for the relevant award:

Award	No. of Credits	No. of Required Subjects
MSc	30	9 Compulsory Subjects + 1 Elective Subject
PgD	21	7 Compulsory Subjects

The programme is leading to the Master of Science in Accounting and Finance Analytics award. Students admitted to the MSc programme may apply for early exit with a Postgraduate Diploma (PgD), subject to meeting the specified credit requirements.

Students who subsequently decide to graduate with a PgD must apply to the School of Accounting and Finance by submitting an application for graduation **Form AR84c**.

5.3 Mode and Duration of Study

The programme is operated in mixed-mode. Students enrolling on the programme are classified as mixed-mode students. They may engage in a full-time or part-time study load by attending classes in the daytime, evening or a combination of both. If the mixed-mode students take subjects of 9 credits or more in a semester, they will be given full-time status in that semester. Otherwise, they will be given part-time status.

The academic year is organized into Semester 1 (13 weeks), Semester 2 (13 weeks) and Summer Term (7 weeks), where appropriate.

Classes will be scheduled on weekday evenings, daytime or weekends. The number of class contact hours will depend on the approach to learning and teaching adopted in the subject. While students' effort need not necessarily be defined in terms of class contact, most subjects require 39 hours of class contact. In a regular semester, most subjects have 3 hours contact time per week. Actual number of class meetings may vary in light of certain conditions in the offering semester, such as the arrangement of public holidays; or other pedagogical needs of subject lecturers.

The duration of the programme is as follows:

Full-time study load

	MSc	**PgD**
Normal Duration	1 year	1 year

Part-time study load

	MSc	**PgD**
Normal Duration	2 years	2 years

5.4 Subject Offerings

Subjects	
Compulsory Subjects for MSc and PgD (21 credits)	
AF5115	Accounting for Business Analysis
AF5122	Business Analytics in Accounting and Finance
AF5203	Contemporary Issues in Accounting Information Systems
AF5312	Principles of Corporate Finance
AF5344	Investments
AF5364	Quantitative Methods for Accounting and Finance
AF5365	Applications of Computing and Technology in Accounting and Finance I
Compulsory Subjects for MSc (6 credits)	
AF5123	Financial Analysis and Valuation with Programming
AF5366	Applications of Computing and Technology in Accounting and Finance II
Elective Subject* for MSc (any one) (3 credits)	
AF5112	Management Accounting
AF5201	Auditing Framework

AF5322	Corporate Risk Management
AF5323	Fixed Income Securities
AF5351	Derivative Securities
AF5353	Security Analysis and Portfolio Management
AF5937	Accounting and Finance Analytics Project
COMP5112	Data Structures and Database Systems
COMP5511	Artificial Intelligence Concepts
MM5412	Business Intelligence and Decision

*Subject to university's minimum enrolment requirement, not all subjects will be offered each year. Registration is subject to the availability of quota.

Students should observe carefully on the pre-requisite, co-requisite and/or exclusion requirements before enrolling the subject(s) in the programme. Failing to comply with the requirements may result in a delay in subject registration and/or programme completion.

5.5 Recommended Progress Pattern

The programme offers a structured progression patterns[1], and students should follow the progression pattern to complete the programme within the normal duration.

Full-time study load

	Year One
Semester One	5 Compulsory Subjects
Semester Two	4 Compulsory Subjects and 1 Elective Subject

Part-time study load

	Year One	**Year Two**
Semester One	3 Compulsory Subjects	2 Compulsory Subjects
Semester Two	3 Compulsory Subjects	1 Compulsory Subject and 1 Elective Subject

6 CURRICULUM MAP

The **institutional learning outcomes** are as follows:

a. **Professional competence of specialists/leaders of a discipline/profession -** Graduates of PolyU TPg programmes will possess in depth-knowledge and skills in their area of study and be able to apply their knowledge and contribute to professional leadership.
b. **Strategic thinking -** Graduates of PolyU TPg programmes will be able to think holistically and analytically in dealing with complex problems and situations pertinent to their professional practice. They will be versatile problem solvers with good mastery of critical and creative thinking skills, who can generate practical and innovative solutions.

[1] Patterned subjects on offer are subject to change without prior notice. Students can enquire the class timetable of the semester concerned via http://www.polyu.edu.hk/student upon release of the relevant class timetable.

c. **Lifelong learning capability -** Graduates of PolyU TPg programmes will have an enhanced capability for continual professional development through inquiry and reflection on professional practice.

The above institutional learning outcomes are appropriately addressed by the totality of the programme learning outcomes of the MSc in Accounting and Finance Analytics programme, as set out below:

Programme Learning Outcomes and Learning Objectives	**Addressed by Subjects**
1. Evaluate accounting and finance issues Learning Objective 1: To use the conceptual frameworks needed to evaluate contemporary issues about accounting and finance disciplines.	<u>Compulsory subjects</u> AF5115 Accounting for Business Analysis AF5203 Contemporary Issues in Accounting Information Systems AF5312 Principles of Corporate Finance AF5344 Investments <u>Reinforced by elective subjects</u> AF5112 Management Accounting AF5201 Auditing Framework AF5322 Corporate Risk Management AF5323 Fixed Income Securities AF5351 Derivative Securities AF5353 Security Analysis and Portfolio Management
2. Understand technological methods Learning Objective 2: To understand the fundamental quantitative and technological methods in accounting and finance.	<u>Compulsory subjects</u> AF5122 Business Analytics in Accounting and Finance AF5364 Quantitative Methods in Accounting and Finance
3. Apply technology and data analytics skills Learning Objective 3: To apply technology and data analytics skills to solve accounting and finance problems faced in real-life situations in an ethical manner.	<u>Compulsory subjects</u> AF5123 Financial Analysis and Valuation with Programming AF5365 Applications of Computing and Technology in Accounting and Finance I AF5366 Applications of Computing and Technology in Accounting and Finance II <u>Reinforced by elective subjects</u> AF5937 Accounting and Finance Analytics Project COMP5511 Artificial Intelligence Concepts COMP5112 Data Structures and Database Systems MM5412 Business Intelligence and Decision

7 PROGRAMME MANAGEMENT AND OPERATION

A Programme Committee is formed to exercise the overall academic and operational responsibility for the Programme and its development within policies, procedures and regulations defined by the University. Its composition comprises academics and student representatives.

The Programme Director and/or Deputy Programme Director and/or Programme Manager are responsible for the day-to-day management and operation of the programme, student admissions, teaching and learning matters, quality assurance (QA) and programme development. Their prime role is to ensure the programme is delivered according to the established QA mechanism.

8 COMMUNICATIONS WITH STUDENTS

While we work to communicate clearly and in a timely manner with students according to University regulations and procedures, it is the **responsibility of students** to help maintain the effectiveness of the communication process. The main communication channel for disseminating information and notices to students within the University will be through PolyU e-mail (i.e. PolyU Connect account) and the University Portal. Therefore, students are advised to check for messages in their PolyU Connect accounts **regularly** to obtain the latest information regarding their studies and the status of any related applications (e.g. late assessment, appeal of subject results, add/drop of subjects, deferment, etc) lodged. Failure in doing so will not constitute any grounds for appeals/complaints against consequences / decisions of the relevant matters and applications.

9 SUBJECT REGISTRATION

9.1 Add/Drop of Subjects

In addition to programme registration, students need to register for subjects at specified period prior to the commencement of the semester.

If you wish to make changes to your subject registration, you may do so through the add/drop at the eStudent during the two-week add/drop period (one week for Summer Term). You are advised not to make any changes to the subjects pre-assigned to you by the department without consulting your department/Academic Advisor. In case you wish to drop all the subjects in a semester, you must first seek approval from your department for zero subject enrolment. Otherwise, you will be considered as having decided to withdraw from study on the programme concerned. Dropping of subjects after the add/drop period is not allowed. If you have a genuine need to do so, it will be handled as withdrawal of subject.

If you have taken more credits, you will receive a second debit note on the remaining tuition fee about four to five weeks after the commencement of Semester One and Semester Two. If you have taken less credits, a refund will be made.

9.2 Withdrawal of Subjects

If you have a genuine need to withdraw from a subject after the add/drop period, you should submit an application for withdrawal of subjects to your programme offering

department. Such requests will first be considered by the subject teacher concerned and followed by the programme leader if there are strong justifications and when the tuition fee of the subject concerned has been settled. Deadline for requests for subject withdrawal will be specified by the teaching department and in any case, it will not be entertained after the commencement of the examination period.

For approved cases, the tuition fees paid for the withdrawn subjects will not be refunded. The withdrawn subjects will be shown under the "Assessment Result" of eStudent and in the Transcript of Studies.

10 SUBJECT EXEMPTION AND CREDIT TRANSFER

Irrespective of the extent of previous study or credits recognised, all students studying at the University should complete at least one third of the normal credit requirement in order to be eligible for a PolyU award.

If you consider your previous study is relevant to your current programme, you may apply for subject exemption **(Form AR41e)** or credit transfer (**Form AR41c)** via **eStudent**.

Subject Exemption
You may be granted exemption from taking certain subjects if you have successfully completed similar subjects in another programme. The credits associated with the exempted subject will not be counted for satisfying the credit requirements of your programme. You should consult your department and take another subject in its place.

Credit Transfer
You should submit an application for credit transfer upon your initial enrolment on the programme or before the end of the add/drop period of the first semester of your first year of study. Late applications may not be considered. For students whose tuition fees are charged by credits, a credit transfer fee will be charged.

The validity period of subject credits earned is eight years from the year of attainment, i.e. the year in which the subject is completed, unless otherwise specified by the Department responsible for the content of the subject (e.g. the credit was earned in 2018/19, then the validity period should count from 2019 for eight years). Credits earned from previous studies should remain valid at the time when the student applies for transfer of credits.

There is a limit to the maximum number of credits that can be transferred. If the credits attained from previous study are from PolyU, the total credits transferred should not exceed 67% of the required credits for the award. If the credits gained are from other institutions, the total credits transferred should not exceed 50%. In cases where both types of credits are transferred, not more than 50% of the required number of credits for the academic award may be transferred. Grades may or may not be given for the transferred credits.

Credit transfer for elective subjects would not be considered. Students are encouraged to broaden their knowledge by taking subjects which they have not exposed to in their prior studies.

11 RETAKING OF FAILED SUBJECTS

Students may only retake a subject which they have failed (i.e. Grade F or S or U). After the announcement of subject results in a semester, you should check whether you have failed any subject via eStudent and arrange for retaking of the subject during subject registration. Retaking of subjects is with the condition that the maximum study load of 21 credits per semester is not exceeded.

The number of retake of each subject is restricted to a maximum of two. The second retake of a failed subject requires the approval of the Faculty / School Board. Students who have failed a compulsory subject after two retakes will be de-registered.

Students can retake a failed subject the first time via eStudent directly during the subject registration period and add/drop period. For a second retake of a failed subject, students should complete form AR160 instead and return it to the programme offering departments to seek approval.

When you retake a failed subject, only the grade obtained in the final attempt of the retake will be included in the calculation of Grade Point Average (GPA) and GPA for award classification. Although the original grade will not be included in the calculation of GPAs, it will be shown on the Transcript of Studies.

Students paying credit fee will be charged for the subjects retaken.

12 ZERO SUBJECT ENROLLMENT AND RETENTION OF STUDY PLACE

If you do not wish to take any subject in a semester, you must seek approval from your department to retain your study place by submitting your application **via eStudent** before the start of the semester and in any case not later than the end of the add/drop period. Otherwise, your student status with the University will be withdrawn. Unless otherwise approved, the semesters during which you are allowed to take zero subject will nevertheless be counted towards the total period of registration (or maximum period of registration for students admitted in or before 2019/20).

You will receive result notification from the department normally within two weeks. Students who have been approved for zero subject enrolment are allowed to continue using campus facilities including library facilities. A fee of HK$2,105 per semester for retention of study place will be charged.

For Non-local students, if you are approved for deferment of study/zero subject enrolment, you must ensure that you will hold a valid student visa when you resume study upon expiry of the approved period of deferred study. If your visa has expired, you need to apply to the Immigration Department for the student visa via the Academic Registry.

Procedures

• Seek approval from your programme offering department by submitting the relevant AR forms.

• Once the department approves your application, the Academic Registry might report your application to the Director of Immigration.

To resume study upon expiry of the approved period of deferred study, you must hold a valid student visa. If your visa has expired, you need to apply to the Immigration Department for the student visa via the Academic Registry.

Procedures
• Submit all necessary documents for student visa application to the Academic Registry by express post at least eight weeks before you resume your study.

For details, please visit the AR Website [http://www.polyu.edu.hk/ar > Students in Taught Programmes > Visa Matters for Non-local Students].

13 DEFERMENT OF STUDY

You may apply for deferment of study if you have a genuine need to do so, such as prolonged illness or being posted to work outside Hong Kong. Applications from students have not yet completed the first year of a full-time programme will be considered only under exceptional circumstances. The deferment period will not be counted towards the total period of registration (or maximum period of registration for students admitted in or before 2019/20).

You are required to submit an application for deferment of study via **eStudent** to the programme offering department. You will be informed of the result of your application in writing or via e-mail by the department normally within three weeks from the date of application.

It is necessary for you to settle all the outstanding tuition fee and/or other fees in order to have your application for deferment processed if the application is submitted after the start of a semester. All fees paid are non-refundable and non-transferable. Students approved for deferment of study will normally not be eligible to access the campus facilities/services. Students can check for further details from the relevant service providing units. Alternatively, you may apply for zero subject enrolment to retain your study place.

Students who have been approved for deferment of study can retain their student identity card for use upon their resumption of study. You will be advised to settle the tuition fee and complete the subject registration procedures upon expiry of the deferment period. If you do not receive such notification one week before the commencement of the Semester, you should enquire at the Academic Registry.

For Non-local students, if you are approved for deferment of study/zero subject enrolment, you must ensure that you will hold a valid student visa when you resume study upon expiry of the approved period of deferred study. If your visa has expired, you need to apply to the Immigration Department for the student visa via the Academic Registry.

Procedures
• Seek approval from your programme offering department by submitting the relevant AR forms.

• Once the department approves your application, the Academic Registry might report your application to the Director of Immigration.

To resume study upon expiry of the approved period of deferred study, you must hold a valid student visa. If your visa has expired, you need to apply to the Immigration Department for the student visa via the Academic Registry.

Procedures
• Submit all necessary documents for student visa application to the Academic Registry by express post at least eight weeks before you resume your study.

For details, please visit the AR Website [http://www.polyu.edu.hk/ar > Students in Taught Programmes > Visa Matters for Non-local Students].

14 WITHDRAWAL OF STUDY

14.1 Official Withdrawal

If you wish to discontinue your study at the University before completing your programme, it is necessary for you to complete the withdrawal procedure via **eStudent**. Fees paid for the semester in which you are studying will not be refunded. Applications for withdrawal of study for the current semester must be submitted before the commencement of the examination period. Applications submitted after the commencement of the examination period will not be processed. Applications for withdrawal of study for the following academic year/semester should be submitted before the commencement of that academic year/semester.

Your application will not be processed if you have not cleared outstanding matters with the various departments/offices concerned, such as settling outstanding fees/fines and Library loans and clearing your locker provided by the Student Affairs Office.

The relevant department will inform you in writing or via e-mail of the result of your application, normally within three weeks after you have cleared all the outstanding items as mentioned above.

Upon confirmation of your official withdrawal, you will be eligible for the refund of the caution money paid if you have no outstanding debts to the University.

All fees are non-refundable and non-transferable.

If you discontinue your study at the University without completing proper withdrawal procedures, you will be regarded as having unofficially withdrawn and the caution money paid at first registration will be confiscated.

14.2 Discontinuation of Study

If you discontinue your study without following the proper procedures for official withdrawal, you will be regarded as having given up your study at the University. In such cases, you will not be eligible for the refund of caution money and shall not be considered for re-admission to the same scheme/programme/stream in the following academic year.

14.3 De-registration

Students who have been de-registered on ground of academic failure shall not be considered for re-admission to the same programme in the following academic year.

For Non-local students, once it is confirmed that you have discontinued, withdrawn your study at PolyU or have been de-registered from your programme, the University will inform the Immigration Department accordingly. According to Immigration Regulations, you must leave Hong Kong before the expiry of your limit of stay or within four weeks from the date of the termination of study, whichever is earlier; otherwise, you will be committing a criminal offence of breaching your conditions of stay.

15 ASSESSMENT METHODS

Students' performance in a subject can be assessed by continuous assessments and/or examinations, at the discretion of the individual subject offering department. Where both continuous assessment and examinations are used, the weighting of each in the overall subject grade shall be clearly stated in this document. Learning outcome should be assessed by continuous assessment and / or examination appropriately, in line with the outcome-based approach.

Continuous assessment may include tests, assignments, projects, laboratory work, field exercises, presentations and other forms of classroom participation. Continuous Assessment assignments which involve group work should nevertheless include some individual components therein. The contribution made by each student in continuous assessment involving a group effort shall be determined and assessed separately, and they can result in different grades being awarded to students in the same group.

16 GRADING

Grade	Description	Grade Point
A+	Excellent	4.3
A		4.0
A-		3.7
B+	Good	3.3
B		3.0
B-		2.7
C+	Satisfactory	2.3
C		2.0
C-		1.7
D+	Pass	1.3
D		1.0
F	Fail	0.0

'F' is a subject failure grade, whilst all others ('D' to 'A+') are subject passing grades. No credit will be earned if a subject is failed.

At the end of each semester/term, a Grade Point Average (GPA) will be computed as follows, and based on the numeral grade point of all the subjects:

$$GPA = \frac{\sum_{n} \text{Subject Grade Point} \times \text{Subject Credit Value}}{\sum_{n} \text{Subject Credit Value}}$$

where n = number of all subjects (inclusive of failed subjects) taken by the student up to and including the latest semester/term. For subjects which have been retaken, only the grade point obtained in the final attempt will be included in the GPA calculation.

In addition, the following subjects will be excluded from the GPA calculation:

(i) Exempted subjects
(ii) Ungraded subjects
(iii) Incomplete subjects
(iv) Subjects for which credit transfer has been approved without any grade assigned
(v) Subjects from which a student has been allowed to withdraw (i.e. those with the code 'W')

Subject which has been given an "S" code, i.e. absent from all assessment components, will be included in the GPA calculation and will be counted as "zero" grade point. GPA is thus the unweighted cumulative average calculated for a student, for all relevant subjects taken from the start of the programme to a particular point of time. GPA is an indicator of overall performance and ranges from 0.0 to 4.3 from 2020/21.

Any subject passed after the graduation requirement has been met or subjects taken on top of the prescribed credit requirements for award shall not be taken into account in the grade point calculation for award classification.

17 PROGRESSION AND DE-REGISTRATION

A student will normally have "progressing" status unless he/she falls within any one of the following categories, which shall be regarded as grounds for de-registration from the Programme:

(i) the student has exceeded the maximum period of registration (applicable to students admitted in or before 2019/20); or
(ii) the student has reached the final year of the normal period of registration unless approval has been given for extension (applicable to students in or after 2020/21); or
(iii) the student has reached the maximum number of retakes allowed for a failed compulsory subject: or
(iv) the student's GPA is lower than 1.70 for two consecutive semesters and his/her Semester GPA in the second semester is below 1.70; or
(v) the student's GPA is lower than 1.70 for three consecutive semesters.

When a student falls within any of the categories as stipulated above, except for category (ii) with approval for extension, the Board of Examiners shall de-register the student from the programme without exception.

Notwithstanding the above, the Board of Examiners will have the discretion to de-register students with extremely poor academic performance before the time specified in (iv) and (v) above**.**

The progression of students to the following academic year will not be affected by the GPA obtained in the Summer Term, unless Summer Term study is mandatory for all students of the programme and constitutes a requirement for graduation and is so specified in the Programme Requirement Document.

18 ACADEMIC PROBATION

The academic probation system is implemented to give prior warning to students who need to make improvement in order to fulfill the GPA requirement of the University. If your GPA is below 1.70, you will be put on academic probation in the following semester. If you are able to obtain a GPA of 1.70 or above by the end of the probation semester, the status of "academic probation" will be lifted. The status of "academic probation" will be reflected under the "Assessment Results" of eStudent. However, this status will not be displayed in the Transcript of Studies.

To improve the academic performance of students on academic probation, students on academic probation are required to seek academic advice on study load and subjects to be taken. These students will normally be required to take a study load of not more than 15 credits. Students should, within one week of assessment results announcement, complete the Form 'Study Load for Students on Academic Probation' (**Form AR150**) (AR Website > Students on Taught Programmes > Application Forms) indicating the proposed study plans and meet with the Academic Advisors to finalise the subjects and number of credits to be taken in the semester following academic probation.

19 ELIGIBILITY FOR AWARD

A student would be eligible for the award of Master of Science in Accounting and Finance Analytics or Postgraduate Diploma in Accounting and Finance Analytics if he/she satisfies all the conditions listed below:

(i) accumulation of the requisite number of credits for the award as defined in this document;
(ii) satisfying all "compulsory" and "elective" requirements ("elective" requirement is for Master of Science in Accounting and Finance Analytics only) as defined in this document; and
(iii) having a **GPA of 1.70** or above at the end of the programme.

A student is required to graduate as soon as he/she satisfies all the above conditions for award. Upon confirmation of eligibility to graduate or leaving the University, registration for subjects (including the follow-on term of consecutive subjects) in the following semester/Summer Term will be nullified and removed.

Students who meet all requirements of the University and the programme concerned will be eligible for graduation. Academic award parchments are issued thrice a year, with cut-off dates set on 15 March, 15 July and 15 October each year.

• Students with graduation status confirmed on or before 15 March, they will receive the academic award parchments in mid-April with the award parchment dated 15 March of the year concerned.

• Students with graduation status confirmed during 16 March to 15 July, they will receive the academic award parchments in mid-August with the award parchment dated 15 July of the year concerned.

• Students with graduation status confirmed during 16 July to 15 October, they will receive the academic award parchments in mid-November with the award parchment dated 15 October of the year concerned.

Please visit AR Website > Graduates > Award Parchment for more updated information on the collection arrangement of the award parchment in early March, early July or early October with reference to your graduation timeline.

20 AWARD CLASSIFICATIONS

The following award classifications apply to your programme:

Award Classification	GPA
Distinction	3.60 – 4.30
Credit	3.00 – 3.59
Pass	1.70 – 2.99

The above ranges for different classifications are subject to BoE's individual discussion of marginal cases.

21 LATE ASSESSMENT

If you have been absent from an examination or are unable to complete all assessment components of a subject because of illness, injury or other unforeseeable reasons, you may apply for a late assessment. Application in writing should be made to the Head of Department offering the subject within five working days from the date of the examination, together with any supporting documents such as a medical certificate. Approval of applications for late assessment and the means for such late assessments shall be given by the Head of Department offering the subject or the Subject Teacher concerned, in consultation with the Programme Director.

In case you are permitted to take a late assessment, that examination or other forms of assessment will be regarded as a first assessment and the actual grade attained will be awarded.

22 PROCEDURES FOR APPEAL

22.1 Appeals against Decisions on Subject Results

Students appealing against the decision on their subject results shall pay a fee of HK$125 per examination paper. Payment forms are obtainable from the Academic Registry Service Centre. Softcopies of the payment form can also be sent to students via email by their programme offering departments or the Academic Registry upon request. If more than one examination paper is involved, an extra fee of HK$125 will be charged for each additional paper. This fee shall be refunded if the appeal is successful/upheld.

A student should make his/her appeal in writing to his/her Head of Department within one calendar week upon the public announcement of his/her overall results, i.e. the date when the results are announced to students via the web. The Head of Department shall deal with the appeal if the student is studying in a department-based programme/scheme. If the student is studying in postgraduate schemes, the Head of Department shall refer the appeal to the Scheme Committee Chairman.

The appeal should be accompanied by a copy of the fee receipt, for inspection by the department concerned. The student should give a complete account of the grounds for the appeal in the letter, and provide any supporting evidence.

Departments should inform the student concerned of the appeal result within one calendar week after either the announcement of the student's overall result or receipt of the letter of appeal, whichever is later.

If the appellant is dissatisfied with the decision, he/she may then appeal in writing to the Registrar within one calendar week from the date of the department's reply. He/She should provide the following information together with other relevant documents in support of the appeal:

- name in English and Chinese;
- student number;
- programme title, year and class of study;
- subject results appealing against; and
- grounds for appeal.

The Registrar shall then refer the case to the Academic Appeals Committee (AAC), which shall determine whether there are prima facie grounds for a reconsideration of the decision of the Subject Teacher's/SARP concerned.

22.2 Appeals against Decisions on De-registration

Students appealing against the decisions on de-registration shall pay a fee of HK$125. Payment forms are obtainable from the Academic Registry Service Centre. Softcopies of the payment form can also be sent to students via email by their programme offering departments or the Academic Registry upon request. The fee shall be refunded if the appeal is successful/upheld.

Students should complete and submit Form AR149 "Appeal against the Decision of BoE on De-registration" to the General Office of the department hosting the programme/award (or to the Faculty/School Office if the programme/award is hosted by the Faculty/School) within one calendar week upon the public announcement of the overall results, i.e. the date when the results are announced to students via the web. When submitting the form, the appellant has the responsibility to make known to the AAC full details and evidence that would support his/her appeal.

The appeal by the students will be considered by the AAC, which will deliberate the appeal cases making reference to the recommendations of the programme-hosting department/faculty and the Faculty Dean/School Board Chairman.

22.3 Appeals against Decisions on Award Classification

Students appealing against the decisions on award classification shall pay a fee of HK$125. Payment forms are obtainable from the Academic Registry Service Centre. Softcopies of the payment form can also be sent to students via email by their programme offering departments or the Academic Registry upon request. The fee shall be refunded if the appeal is successful/upheld.

A student should make his/her appeal in writing to his/her Head of Department within one calendar week upon the public announcement of the overall results, i.e. the date when the results are announced to students via the web. He/She should provide the

following information together with relevant documentation, if any, in support of the appeal:

- name in English and Chinese;
- student number;
- programme title, year and class of study; and
- grounds for appeal.

23 DISMISSAL OF CLASS

If the subject lecturer does not show up after 30 minutes of the scheduled start time, the class is considered cancelled and appropriate follow up arrangements (e.g. rescheduled class, make-up class, etc) will be announced to students in due course.

24 PLAGIARISM AND BIBLIOGRAPHIC REFERENCING

Plagiarism refers to the act of using the creative works of others (e.g. ideas, words, images or sound, etc) in one's own work without proper acknowledgement of the source. Students are required to submit their original work and avoid any possible suggestion of plagiarism in the work they submit for grading or credit. The University views plagiarism, whether committed intentionally or because of ignorance or negligence, as a serious disciplinary offence. Excuses such as "not knowing that this is required" or "not knowing how to do it" are not accepted. It is the student's responsibility to understand what plagiarism is, and take action steps to avoid plagiarism in their academic work. The golden rule is: "if in doubt, acknowledge".

Students should comply with the University's policy on plagiarism in continuous assessment, bibliographic referencing and photocopying of copyright materials. Please read details on "Plagiarism" given in Appendix 3 of the Student Handbook.

25 COPYING OF COPYRIGHT MATERIALS

The learning and teaching platforms of the University are for the use of PolyU students to facilitate their learning. The students shall use the platforms and the materials available (including teaching sessions conducted by staff of PolyU) for their personal study only. Where a student needs to download or save the materials available on the platforms for the permitted purposes, the student shall take all necessary measures to prevent their access by other parties. The materials are copyright protected. Save for the permitted purposes, no copying, distribution, transmission or publication of the materials in whole or in part in any form is permitted.

26 PREVENTION OF BRIBERY ORDINANCE

PolyU staff members may in no circumstances solicit or accept an advantage. For relevant details, please refer to the Prevention of Bribery Ordinance (Chapter 201) of the Laws of Hong Kong at http://www.legislation.gov.hk.

For details of all the regulations, please refer to the Student Handbook of the relevant year. (accessible https://www.polyu.edu.hk/ar/students-in-taught-programmes/student-handbook/)

PART II: SUBJECT SYLLABUSES

The subject syllabuses contained in this Programme Requirement Document are subject to review and change from time to time. The School of Accounting and Finance reserves the right to revise or withdraw the offer of any subject contained in this document. For teaching and learning, students should refer to the updated subject syllabuses distributed to them by the relevant subject lecturers when they take the corresponding subjects.

Subject Code	**AF5112**
Subject Title	**Management Accounting**
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	This subject aims to equip students with a thorough understanding in management accounting concepts and techniques, and to provide them with an understanding of the uses and limitations of data in planning, control and decision making. It contributes to the achievement of PgDPA/MPA Programme Outcomes by enabling students to use cost accounting and financial accounting information effectively for planning, control and decision making, appreciate management accounting as an interdisciplinary subject in its context as an information and decision support system within the modern industrial and commercial organizations and apply planning and control techniques for strategy formulation and implementation (Programme Outcome 2).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: (a) explain the overall management accounting framework and it's implications in business context; (b) explain the basic costing concepts and the various costing systems in both traditional and contemporary manufacturing environment and determine product cost under traditional and contemporary costing systems; (c) explain the planning and control framework and their implications to management functions and use financial / non-financial information to aid planning and control; (d) prepare, analyse and visualize management accounting information and other factors when assisting management decision making; (e) appreciate management accounting as an interdisciplinary subject in its context as an information and decision support system within modern industrial and commercial organizations.
Subject Synopsis/ Indicative Syllabus	**Introduction to Management Accounting** The function of management. The difference between financial accounting and management accounting. Ethical issues in management accounting. **Job-order and Process Costing** The flow of cost. Problems of overhead application. Job-order costing in service companies. Equivalent unit computations. First-in-first-out and weighted average method.

	Activity-based Costing ABC vs. traditional costing systems. Cost pools and cost hierarchies. First and second stage allocation. Activity-based management. **Joint and By-product Costing** Differentiate between joint and by-products. Accounting for joint and by-products. **Cost-Volume-Profit Analysis and Decision Making** Review of Cost Behavior. Approaches to analyse the cost function. Breakeven point for single and multi-product settings. The concepts of operating leverage and margin of safety. Use of relevant cost in different decision environments. Buy versus make decision. Keep or abandon. Decision Making under Uncertainty. **Standard Costing and Budgeting** Budgetary Process. Behavioural aspects of the budgetary process. Basic and advance variance computations. Application of variances in management control. **Performance Measurement** Review of different performance indicators. The choice of the appropriate performance measures. Behavioural aspects of performance measures. **Transfer Pricing Policy** Examine various transfer pricing policy and the criteria of a good transfer policy will be examined. The behavioural aspects of implementing different transfer policy. **Responsibility to Clients, Management and Owners** **Contemporary Issues in Management Accounting** Introduce basic data analytics skills in management accounting practice.
Teaching/Learning Methodology	Key concepts and principles will be introduced in the 3-hour seminar. Class discussion will also be conducted to stimulate students' critical thinking on the subject matter. Students will immediately apply the knowledge they have learnt in completing group assignments.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
		a	b	c	d	e	
Term test	20%	√	√				
Class participation	5%	√	√	√	√	√	
Case analysis and report	25%	√	√	√	√	√	
Final examination	50%	√	√	√	√	√	
Total	100 %						

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

The term test assesses the students' understanding of costing principles. The test requires students to analyze and apply costing principles to determine product cost under different manufacturing or non-manufacturing settings.

Class participation stimulates students' critical thinking in issues related to product cost determination and using financial/non-financial information for strategic and operational planning, control and decision making.

Case analysis and report require students to complete a problem/mini-case by applying the concepts presented in class.

Final examination – The 3-hour examination tests the students' ability to apply financial and non-financial information towards management planning, control and decision-making.

10% (or more) of the overall weighting of this subject is based on assessment concerning data analytics knowledge.

Note: To pass this subject, students are required to obtain Grade D or above in BOTH the Continuous Assessment and Examination components. In addition, the specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.

Student Study Effort Expected		
	Class contact:	
	▪ 13 weeks of three-hour seminar	39 Hrs.
	Other student study effort:	
	▪ Class preparations, reading subject materials/textbook, assignments and group discussions	78 Hrs.

	Total student study effort	117 Hrs.
Reading List and References	Garrison, Noreen, Brewer, et al, Managerial Accounting, Asian Global Edition, Latest edition, latest edition, McGraw Hill. Horngren, Datar, Foster, Ittner, Cost Accounting, latest edition, Prentice Hall. Antony & Govindarajan, Management Control Systems, latest edition, McGraw Hill.	

Subject Code	AF5115
SubjectTitle	Accounting for Business Analysis
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite/ Co-requisite/ Exclusion	None
Objectives	This subject aims to outline and explain the accounting concepts, techniques and current regulatory and governance environment that are pertaining to the preparation, presentation, analysis, understanding, and evaluation of financial reports. It contributes to the achievement of MSc AFA Programme Outcome by enabling students to use the conceptual frameworks needed to evaluate contemporary issues about accounting and finance disciplines (MSc AFA Programme Outcome 1).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Understand and apply the accounting concepts and techniques, and evaluate their impact on financial statement figures and presentation; b. Analyze and evaluate financial statements and financial performance with various tools such as ratio analysis, trend analysis, and common-size financial statements; c. Assess the accounting policies and governance structure adopted by companies as well as the reporting regulations, such as HKFRS and IFRS, and their impact on the quality of earnings; and d. Evaluate the impact of financial analysis on capital markets, and business and financial strategy development, investment and business combination activities.

Subject Synopsis/Indicative Syllabus	**Overview of financial Statement** • To provide you with the skills to efficiently allocate financial resources among different businesses and apply the framework to a variety of business decisions. **Understanding the Business** • To develop a thorough knowledge of the macroeconomic environment, industry structure and the operations and strategies of the particular business for firms you are studying **Accounting (Balance Sheet and Income Statement) Analysis** • Review basic accounting concepts and the key financial statements • Evaluate how well the accounting reflects the underlying economics of the business • We will describe the limitations of financial statement information and providing guidelines for addressing these limitations **Financial Ratio Analysis** • Provides a framework for interpreting and forecasting a huge quantity of financial data in an organized and systematic manner. **Cash Flow Analysis** • Create a pro forma statement of cash flows based on standardized income statements and balance sheets • Describe how to use the information in the resulting cash flow statements to evaluate the cash consequences of the company's operating, investing and financing activities **Accounting Issues and Audit Report** • Accounting standards and financial statement reporting • Non-recurring items, valuation of tangible and intangible assets, segment reporting • Equity method of accounting • Earnings management in financial tsunami • Quality of earnings • Significance and Implications of auditors' opinion for financial reporting **Financial Reporting and Analysis for Investment** • Financial reporting and analysis for marketable securities • Bankruptcy prediction • Other information disclosed in annual report

<table>
<tr><td>Teaching/Learning Methodology</td><td>This subject comprises of class-contact lectures and workshops. Workshops will be conducted in the form of group discussion, seminar and case study. Students are expected to apply their knowledge to the discussion of the current accounting, business and finance issues faced by an executive of a firm. It is the basic philosophy of learning in this subject that at least 2 hours of outside preparation are usually required to read the assigned textbook chapter(s) and reading materials, and to prepare solutions to exercises and problems as well as presentations, as a prerequisite for a meaningful 1-hour classroom lecture/seminar.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td></td><td></td></tr>
<tr><td>1. Class participation</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>2. Individual assignment</td><td>20%</td><td>✓</td><td>✓</td><td></td><td></td><td></td><td></td></tr>
<tr><td>3. Group project and presentation</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>4. Final Examination</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Class participation – Students have to read assigned reading materials and complete exercises in order to participate actively in class discussion, which would assess their understanding of the key accounting concepts and techniques, and their applications, analysis and evaluation in financial reporting.

Individual assignment – Each student is required to apply the accounting knowledge and techniques to analyze and evaluate the financial position of a company based on its financial statements. The</td></tr>
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<table>
<tr><td></td><td colspan="2">objectives are to test students' understanding and application of relevant concepts and techniques in accounting and financial analysis to a practical situation.

Group project and presentation – Students are required to select a target company for detailed analysis, evaluate its financial performance, and assess its reporting and earnings quality. Students would apply the accounting knowledge and techniques to analyze and evaluate the impact of the macro-economic, business environment, industry, and company operation information on the financial and other qualitative performance indicators.

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
<tr><td rowspan="5">Student Study Effort Expected</td><td>Class contact:</td><td></td></tr>
<tr><td>Lectures / Seminars</td><td>39 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>Reading materials / textbook, preparing for class discussion, and assignments.</td><td>78 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>117 Hrs.</td></tr>
<tr><td>Reading List and References</td><td colspan="2">Textbook
Kieso, D., Weygandt, J., and Warfield, T. Intermediate IFRS, 4E
References
Debra C. Jeter and Paul K. Chaney, Advanced Accounting, 7th Edition
Penman, S.H., Financial Statement Analysis and Security Valuation, 5th Edition, McGraw-Hill Education, 2013.

Indicative Journal Reading:
Campbell, John Y., Jens Hilscher, and Jan Szilagyi, 2008, In search of distress risk, The Journal of Finance 63, 2899-2939.
Dechow, Patricia, Weili Ge, and Catherine Schrand, 2010, Understanding earnings quality: A review of the proxies, their determinants and their consequences, Journal of Accounting and Economics 50, 344-401.
Lee, Charles M. C., 2014, Value investing: Bridging theory and practice, China Accounting and Finance Review 16, 10-38.</td></tr>
</table>

Subject Code	AF5122
Subject Title	Business Analytics in Accounting and Finance
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	This subject introduces students to the basic concepts, methods and approaches of data analytics in accounting and finance. This subject contributes to the achievement of the MSc in Accounting and Finance Analytics programme learning outcomes by enabling students to understand the fundamental quantitative and technological methods in accounting and finance (MSc AFA Programme Outcome 2).
Intended Learning Outcomes	Upon successful completion of this subject, students should be able to: a. Effectively gather, clean and transform accounting and financial data; b. Summarize, visualize and present accounting and financial data; and c. Analyze accounting and financial data with basic analytical approaches.
Subject Synopsis/ Indicative Syllabus	**Introduction of XBRL** XBRL (eXtensible Business Reporting Language) for Internet communication among businesses. **Basic Concepts and Methods of Data Analytics** Data preparation and cleaning; Data analytics approaches; Data visualization and summarization. **Applications of Data Analytics** Diagnostic, predictive and prescriptive analytics in managerial and financial accounting and consumer banking.

<table>
<tr><td>Teaching/Learning Methodology</td><td>Key concepts and techniques will be introduced through lectures. The subject places a lot of emphasis on project work. Students will be required to deliver a project which emphasizes on real-world accounting and finance issues. By completing the project, students should have hands-on experience in using the knowledge they have learnt in class to solve accounting and finance problems in practice. Students are encouraged to share their views and experiences actively with their lecturer and classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td></td><td></td><td></td></tr>
<tr><td>1. Attendance & Class Participation</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>2. In-Class Quizzes</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>3. Lab Assignments</td><td>30%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>4. Project report & Presentation</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
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<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Reading materials / textbook questions/ lab quizzes</td><td>39 Hrs.</td></tr>
<tr><td>▪ On average around 16 hours will be spent on the individual critique and around 20 hours for the group project discussion, presentation and written report</td><td>36 Hrs.</td></tr>
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</td></tr>
</table>

	Total student study effort	114 Hrs.
Reading List and References	***References*** *Data Analytics for Accounting,* 2023, by Richardson, Teeter and Terrell, McGraw-Hill. 2018 SEC reporting taxonomy (https://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1176169700059)	

Subject Code	AF5123
Subject Title	Financial Analysis and Valuation with Programming
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	AF5115 Accounting for Business Analysis AF5365 Applications of Computing and Technology in Accounting and Finance I
Objectives	This subject is designed to enable students to conduct financial analysis and valuation with analytical and computing skills learnt in the pre-requisite subjects. This subject contributes to the achievement of the MSc in Accounting and Finance Analytics programme learning outcomes by enabling students to apply technology and data analytical skills to solve accounting and finance problems faced in real-life situations in an ethical manner (MSc AFA Programme Outcome 3).
Intended Learning Outcomes	Upon successful completion of this subject, students should be able to: a. Develop the ability to gather and analyze financial reports with computing skills; b. Apply analytical and computer skills to assess the values of businesses; and c. Provide an analysis of companies' fundamentals and conduct their valuation with efficient data analytical skills.
Subject Synopsis/ Indicative Syllabus	**Application of NLP** Introduction of NLP (Natural Language Processing) **Business Strategy Analysis** Assessment of the profit potential of a firm at a qualitative level; the role of macroeconomic analysis; framework of industry and competitive analysis. **Accounting and Financial Analysis**

<table>
<tr><td></td><td>The use of computing technology to assess financial statements; Evaluation of a firm's performance in the context of its stated goals and strategy; Applications of frequently used tools such as ratio analysis, cash flow analysis, and common-base as well as common-size financial statements; Visualization of financial analysis

Valuation Principles, Techniques and Practice

Common techniques (e.g. DCF, capitalization of dividends, asset-based valuation, WACC, CAPM) in valuing business; Textual analysis with NLP.

Business Ethics in the Digital Age
The discussion of ethical issues associated with data analytics and GDPR (the General Data Protection Regulation)</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>Key concepts and techniques will be introduced through lectures. The subject places a lot of emphasis on project work. Students will be required to deliver a project which emphasizes on real-world business valuation issues. By completing the project, students should have hands-on experience in using the knowledge they have learnt in class to conduct financial analysis in practice. Students are encouraged to share their views and experiences actively with their lecturer and classmates.</td></tr>
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<tr><td>1. Class participation</td><td>5%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>2. Mini case Project & assignments</td><td>25%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>3. Final project</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>4. Final examination</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
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<tr><td>▪ On average around 16 hours will be spent on the individual critique and around 20 hours for the group project discussion, presentation and written report</td><td>36 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>114 Hrs.</td></tr>
<tr><td colspan="2">Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
<tr><td>Reading List and References</td><td colspan="2">References

“Financial Statement Analysis & Valuation” (Edition: 6ed/Year: 2021/ISBN: 978-1-61853-360-9) by Easton, McAnally, Sommers. Cambridge Business Publishers

Selected articles in accounting and finance journals.</td></tr>
</table>

Subject Code	**AF5201**
Subject Title	**Auditing Framework**
Credit Value	3
Level	5
Pre-requisite / Co-requisite/ Exclusion	Co-requisite: Accounting for Corporations (AF5111)
Objectives	The subject provides students with a set of basic concepts and methodology of the modern auditing and assurance services, with a focus on the financial statement audits. The subject emphasizes the audit process, reporting and current issues affecting auditing and assurance services. It contributes to the achievement of the PgDPA / MPA Programme Outcomes by enabling students to apply and evaluate contemporary development and framework in Auditing (Outcome 1) and analyze and evaluate the ethical issues facing professional accountants (Outcome 3).
Intended Learning Outcomes	On successfully completing this subject, students will be able to: (a) explain the concepts of modern auditing and assurance services, the objectives of auditing and professional standards; (b) apply basic data analytics skills in managing, designing and implementing methodologies for examining, verifying, evaluating and reporting on financial organizations; (c) explain the underlying concepts and objectives of internal control and audit risk as well as ethical principles; and (d) analyze the major ethical issues in accountancy and of the conduct expected of professional accountants by HKICPA.
Subject Synopsis/ Indicative Syllabus	**An Overview of Auditing, and Legal, Professional and Ethical Requirements** Nature and objective of auditing and assurance services. Types of audit. Independence and professional ethics. Hong Kong Companies Ordinance requirements and Auditing Standards in Hong Kong. **Audit planning, Materiality, Audit Risk, Sample Testing and Evidence** Engagement planning and its importance. The assessment of materiality and audit risk. The audit-risk model. Non-statistic sample testing and evidential matters. Types of audit tests. **Internal Control and Internal Audit** Concept of internal control and components of internal control systems. Effectiveness of internal control system on audit strategies and audit testing. Concept of internal audit. Differences between internal & external audit. The

<table>
<tr><td></td><td>assessment of and reliance on internal audit.
Methodologies for Examining the Financial Statements
Audit of sales and collection cycle, purchases and payment cycle, and payroll and personnel cycle, properties, plants and equipment, and inventory.

Auditing IT Systems
Understanding the impact of IT on internal control structure and audit. Computer auditing techniques and computer audit tools in auditing IT systems. Application of data analytics, AI and RegTech in the auditing process.

Completing the Audit and Reporting
Procedures in completing the audit and different types of audit reports.</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>The three hours of lecture per week will be used flexibly by the instructor for discussion of core concepts of subject syllabus and their applications with students and for carrying out other learning activities with them. Students are expected to play an active role to share their views and experiences with their instructor and other classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td></td></tr>
<tr><td>Mid-term test</td><td>25%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td><td></td></tr>
<tr><td>In-class activities, presentation & participation</td><td>25%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td><td></td></tr>
<tr><td>Final examination</td><td>50%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>
Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Mid-term test - A practical audit case(s)/question(s) requiring students to analyze the facts/audit issues and apply relevant auditing concepts, standards and procedures to provide appropriate solution.

In-class activities, case presentation & participation – Students are required to actively participate in in-class activities such as quizes, discussion of questions or short cases to consolidate the materials covered in the lecture and to help crystallising the concepts learnt as well as their applications. Students are also required to present a practical case(s) and/or other contemporary topic(s) on the various aspects related to basic auditing skills and auditing concepts on a group basis.</td></tr>
</table>

<table>
<tr><td></td><td colspan="2">Final examination – 3 hours examination testing students' understanding of fundamental auditing concepts, and ability to analyze the given facts/audit issues and apply relevant auditing concepts, standards and procedures to provide appropriate solution.

To reflect the significant technology content in this subject, 10% (or more) of the overall weighting of this subject is based on individual assessment concerning data analytics knowledge.

Note: To pass this subject, students are required to obtain Grade D or above in BOTH the Continuous Assessment and Examination components. In addition, the specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
<tr><td rowspan="5">Student Study Effort Required</td><td>Class contact:</td><td></td></tr>
<tr><td>▪ 13 weeks of 3 hours seminar each</td><td>39 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Students are on average expected to spend around 2 hours for each contact hour for reading subject material/textbook, doing presentation discussion and written report</td><td>78 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>117 Hrs.</td></tr>
<tr><td>Reading List and References</td><td colspan="2">Leung, P., P. Coram, B. J. Cooper and P Richardson, Modern Audit & Assurance, latest edition, Wiley.

Gay, G. and R. Simnett, Auditing & Assurance Services in Australia, latest edition, McGraw Hill.

Elder, R. J., M.S. Beasley and A.A. Arens, Auditing and Assurance Services: An Integrated Approach, latest edition, Prentice Hall.

The Hong Kong Standards on Auditing and Code of Ethics for Professional Accountants issued by the Hong Kong Institute of Certified Public Accountants.</td></tr>
</table>

Subject Code	AF5203
Subject Title	Contemporary Issues in Accounting Information Systems
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	This subject helps students use the relevant conceptual IT frameworks to evaluate the functionality and effectiveness of accounting information systems (AIS), and to analyze the contemporary security and control aspects of such systems (Programme Outcome 1). This subject is especially useful to those students who are pursuing a career as a systems accountant or an IT auditor.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: (a) obtain the knowledge required to function as a systems accountant; (b) apply the knowledge of management support systems to accounting and related areas; (c) analyse the current development of enterprise-wide systems and their contribution to business process reengineering; (d) apply well-known systems development methodologies for AIS implementations; apply business intelligence software; and (e) evaluate the accounting controls and security measures in AIS.
Subject Synopsis / Indicative Syllabus	Fundamental concepts of AIS Contemporary Enterprise Resource Planning systems (ERP). AIS application to major transaction cycles. The Revenue Cycle. The Expenditure Cycle. The Financial Reporting Systems. Management decision support systems and Business Intelligence (BI) Contemporary systems development methodologies for AIS. Software development life cycle. Prototyping. End-user Development Ethics, Fraud and IT controls. Hands-on visualisation software – Power BI

<table>
<tr><td>Teaching/Learning Methodology</td><td>The three-hour seminar per week will be used by the lecturer for discussing the various contemporary AIS concepts. Coursework assignments will be used to reinforce students' learning. Students are expected to play an active role to interact with the lecturer and classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="5">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td></tr>
<tr><td>1. Class participation</td><td>15%</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>2. Group Project</td><td>15%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td></tr>
<tr><td>3. Individual Assignment</td><td>20%</td><td></td><td>√</td><td>√</td><td>√</td><td></td></tr>
<tr><td>4. Final examination</td><td>50%</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="5"></td></tr>
</table>

Explanation of the assessment methods in assessing the intended learning outcomes:

Class participation:

The class participation component encourages students to provide active feedbacks on the subject materials taught each week. This comprises attendance, class discussions and quizzes.

Group project:

The group project requires students to apply system development methodologies in the selection of information systems.

Individual assignment:

To reflect the significant technology content in this subject, 20% of the overall weighting of this subject is based on individual assessment concerning technology-related knowledge.

Final examination</td></tr>
</table>

<table>
<tr><td></td><td colspan="2">The final examination is a three-hour examination which comprises cases / problems relating to all the learning outcomes.</td></tr>
<tr><td rowspan="5">Student Study Effort Expected</td><td>Class contact:</td><td></td></tr>
<tr><td>▪ Seminars</td><td>39 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Studying subject materials/reference books and doing assignments</td><td>78 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>117 Hrs.</td></tr>
<tr><td>Reading List and References</td><td colspan="2">J.A. Hall, Accounting Information Systems, latest edition, Cengage Learning

J.A. Hall, Information Technology Auditing, latest edition, Cengage Learning

M.B. Romney and P.J. Steinbart, Accounting Information Systems, latest edition, Pearson

K.C. Laudon and J.P. Laudon, MIS: Managing the Digital Firm, Global Edition, latest edition, Pearson

Contemporary articles and journals</td></tr>
</table>

Subject Code	AF5312
Subject Title	Principles of Corporate Finance
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	Pre-requisite: None Exclusion: Financial Management (AF5318) Managerial Finance (AF5326) Finance for Executives (AF5327) Corporate Financial Management (AF5331)
Objectives	This course introduces students to the foundation knowledge and techniques in corporate finance, as well as covering more specialized aspects of corporate finance on which other subjects can be built. This course will help students to identify real life corporate finance issues and explain the related observations or phenomena in terms of sound financial theories concepts. Students are also able to apply up-to-date corporate finance principles and see their impact on corporate policies and strategies.
Intended Learning Outcomes	Upon successful completion of this course, students should be able to: a. Understand the major tasks of corporate finance; b. Understand the role of financial markets and interest rates in corporate financing and how they should be incorporated in corporate financing decisions; c. Understand the importance of the time value of money and its relevance to corporate financial decisions, and be able to apply the up-to-date knowledge acquired in the course to solve similar capital budgeting problems in other real case situations; d. Understand the return-risk relation and the CAPM; e. Understand issues of cost of capital, capital structure, and different methods of equity and debt financing.
Subject Synopsis/ Indicative Syllabus	**Key Concepts of Corporate Finance** Corporate finance and the financial manager; goals of corporate management; agency problem, corporate governance and control of the corporation; firm value expressed as contingency claims; time value of money and present value. **Valuation and Capital Budgeting**

<table>
<tr><td></td><td>Evaluation of capital investment decisions using the net present value rule; alternative rules for capital budgeting; Risk and return; the CAPM.

Market Efficiency and Behavioral Finance
The efficient market hypothesis; behavioral finance; financial crisis.

Capital Structure
Financial leverage and firm value; implications of Modigliani and Miller propositions; capital structure and cost of capital; optimal capital structure; limits to the use of debt; valuation and capital budgeting for the levered firm.

Dividends and Other Payout
Types of dividend; dividend policies; factors affecting dividend payout policy.

Long-term Equity and Debt Financing
Public issue; alternative issue methods; cash offer; announcement of new equity and the value of the firm; cost of new issues; rights; the new-issue puzzle; types of bonds; public issue of bonds; bond refunding; bond rating; private placement of securities.</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>The subject is structured around lectures/seminars, supplemented by exercises within and outside class. Participants are urged to prepare themselves well for each class and to proactively interact with both the instructor and other students. Students should read all relevant chapters a few times and try the practice questions at the end of each chapter.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td></td></tr>
<tr><td>1. Class participation</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>2. Assignment / project</td><td>15%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>3. Test</td><td>25%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>4. Final examination</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>
</td></tr>
</table>

	Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.	
Student Study Effort Expected	Class contact:	
	▪ Lectures / Seminars	39Hrs.
	Other student study efforts:	
	▪ On average, students are expected to spend about 52 hours for studying and doing exercise questions after class.	52 Hrs.
	▪ On average, students are expected to spend 23 hours for doing the assignment / project.	23 Hrs.
	Total student study effort	114 Hrs.
Reading List and References	Textbook Ross, Westerfield, and Jaffe, *Corporate Finance,* McGraw-Hill, International Edition Reference Ross, S.A.,R. W. Westerfield & B. D. Jordan, Fundamentals of Corporate Finance, latest edition, McGraw-Hill. Brealey, R., Myers, S., and F. Allen, *Principles of Corporate Finance*, McGraw-Hill, latest edition. Copeland, T., Weston, J., and Shastri, K., *Financial Theory and Corporate Policy*, Pearson, latest edition. Shefrin, H., *Behavioral Corporate Finance*, McGraw-Hill, latest edition. Selected articles from Journal of Applied Corporate Finance and Annual Review of Financial Economics.	

Subject Code	AF5322
Subject Title	Corporate Risk Management
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	Pre-requisite: Investments (AF5344) Exclusion: Risk Management for Corporations (AF5333) Business Risk Management (AF5336)
Objectives	This course is to prepare students to establish the body of knowledge necessary for independent risk management analysis and decision-making. It builds on basic finance concepts and gives the students an understanding on how a business can identify, measure and control its risks. It contributes to the achievement of the MoF programme outcomes by enabling students to identify, explain and solve real-life risk management problems of non-financial and financial institutions (Outcome 2).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Understand the basic principles of risk management and the role of risk management in business firms b. Identify and analyze underlying factors that lead to good/poor risk management of a business c. Use relevant tools to identify, measure and control risk exposure related to operation, financing and investment in a global market d. Apply Value-at-Risk (VAR) methodology to assess various types of risk for a business e. Understand the development of FinTech and evaluate the implications of such technologies as AI and machine learning, blockchain and big data for risk management
Subject Synopsis/ Indicative Syllabus	**Basic Concepts of Risk and Risk Management** Definitions of risk and risk management. Risk concepts and processes. **Risk Identification, Measurement and Control** Classification of risk. Basic tools. Value-at-Risk (VAR). Stress testing. **Liquidity Risk** Asset liquidity risk. Funding liquidity risk. Liquidity-adjusted VAR. **Credit Risk**

<table>
<tr><td></td><td>Credit exposure. Default risk. Pricing credit risk.

Operational Risk
Identification, assessment and loss distributions. Data challenge.

Integrated/Enterprise Risk Management
Enterprise-wide risk management, its importance and principles.

FinTech
Development of FinTech. Use of FinTech for Managing Risk. Issues with FinTech.</td></tr>
<tr><td>Teaching/ Learning Methodology</td><td>Lectures and seminars will be conducted on the topics of the syllabus. Lecture time will be used flexibly for discussing key concepts and their applications with students and carrying out other learning activities with them. Such activities include group discussions and student presentations of their work (to develop students' critical thinking, analytical skills, teamwork, and communication skills). To maximize benefits, students are encouraged to share their views and experiences actively with their lecturer and classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td></td></tr>
<tr><td>1. Individual Essay</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>2. Project Presentation</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>3. Participation</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>4. Final Examination</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>
To reflect the technology content in this subject, 10% (or more) of the overall weighting of this subject is based on assessment concerning data analytics knowledge.

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
<tr><td></td><td>Class contact:</td><td></td></tr>
<tr><td></td><td>▪ Lectures / Seminars</td><td>39 Hrs.</td></tr>
</table>

Student Study Effort Expected	Other student study effort:	
	▪ Preparing for classes and reviewing course materials.	38 Hrs.
	▪ Writing individual essay	10 Hrs.
	▪ Preparing for group presentation	10 Hrs.
	▪ Preparing for final exam	20 Hrs.
	Total student study effort	117 Hrs.
Reading List and References	**<u>Required Text</u>** Crouhy, M, D. Galai and R. Mark, *The Essentials of Risk Management,* 2nd edition, McGraw Hill, 2014. Other References Hull, John, *Risk Management and Financial Institutions*, 5th edition, Wiley, 2018. Chance & Brooks, *An Introduction to Derivatives & Risk Management*, 10th edition, Cengage Learning, 2016. Lam, James, *Enterprise Risk Management: From Incentives to Controls,* 2nd edition, Wiley, 2014. Marthinsen, John, *Risk Takers: Uses and Abuses of Financial Derivatives*, 2nd edition, Pearson, 2009. Jorion, Philippe, *Value At Risk: The New Benchmark for Managing Financial Risk,*3rd edition, McGraw Hill, 2007. Lynn, T., J.G. Mooney, P. Rosati, and M. Cummins, *Disrupting Finance: FinTech and Strategy in the 21st Century*, Palgrave Macmillan, 2019. Additional readings will be distributed in class or put into Blackboard.	

Subject Code	AF5323
Subject Title	Fixed Income Securities
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	Pre-requisite: AF5344 Investments
Objectives	This course is concerned with fixed income securities and interest rate risk management. It will introduce tools used to explore the theoretical and empirical aspects of fixed income securities and their derivatives. It contributes to the achievement of the programme outcomes by enabling students to understand and explain real life issues related to fixed income securities, and apply relevant concepts and tools to solve problems on fixed income investment (MSc AFA Programme Outcome 1).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Understand and explain the issues in pricing, hedging, and arbitrage in the fixed income securities markets. b. Evaluate various types of fixed income products and analyze their potential risk and return. c. Apply theories and concepts learned and appreciate fixed income investment decisions. d. Understand and explain the recent developments and issues of the fixed income markets, including FinTech applications in bond markets.
Subject Synopsis/ Indicative Syllabus	**The Basic Products** Bond price arithmetic. Treasury bills, notes, bonds and strips. Organization of government bond markets. Spot rates, par rates and forward rates. Constructing zero curves. **Risk Management** Measures of price sensitivity. Simple hedging strategies using fixed

<table>
<tr><td></td><td>income derivatives. Eurodollar futures. Bond futures. Interest rate swaps.

Pricing Interest Rate Claims

Theories of the term structure. Arbitrage free pricing.

Corporate Securities and Credit Risk

Corporate bonds and credit risk. Credit derivatives.

Mortgages and Their Derivatives

Mortgages and mortgage backed securities. Prepayment risk.

Bonds with Embedded Options

Basic pricing principles. Static spread and option-adjusted spread. Negative convexity. Effective duration and convexity.

FinTech
Applications of blockchain, artificial intelligence/machine learning, big data analytics or cloud computing in bond markets.</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>Lectures and seminars will be conducted on the topics of the syllabus. Lecture time will be used flexibly for discussing key concepts and their applications with students and carrying out other learning activities with them. Such activities include group discussions and student presentations of their work (to develop students' critical thinking, analytical skills, teamwork, and communication skills). To maximize benefits, students are encouraged to share their views and experiences actively with their lecturer and classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td></td><td></td></tr>
<tr><td>1. Mid-term Test</td><td>15%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>2. Individual Essay</td><td>15%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>3. Group Presentation</td><td>15%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
</table>
</td></tr>
</table>

	4. Participation	5%	✓	✓	✓	✓		
	5. Final Examination	50%	✓	✓	✓	✓		
	Total	100 %						

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Mid-term Test – It is a closed-book test to cover the intended subject learning outcomes.

Individual Essay – Students have to do a case study or write on a topic about fixed income securities or markets so as to test their abilities to apply concepts taught.

Group Presentation – Students are required to work on a group basis and present an analysis of a current issue about fixed income securities or markets. They have to demonstrate their understanding of concepts taught and their abilities to explain the recent development of the markets.

Participation – Students have to actively discuss questions presented to them in classes to show their understanding of concepts taught and their abilities to apply relevant tools to analyze fixed income securities products.

Final Exam – It is a 3-hour closed-book exam with compulsory problem-solving type and essay type questions to test students' understanding of and abilities to apply all concepts taught.

To reflect the technology content in this subject, 10% (or more) of the overall weighting of this subject is based on assessment concerning data analytics knowledge.

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.

Student Study Effort Expected	Class contact:	
	▪ Lectures / Seminars	39 Hrs.
	Other student study effort:	

	▪ Preparing for classes and reviewing course materials.	39 Hrs.
	▪ Writing individual essay	10 Hrs.
	▪ Preparing for group presentation	10 Hrs.
	▪ Preparing for mid-term test and final exam	20 Hrs.
	Total student study effort	118 Hrs.
Reading List and References	**<u>Textbook</u>** Fabozzi, F., *Bond Markets, Analysis, and Strategies*, 8th edition, Pearson, 2013. **<u>References</u>** Supplementary readings from academic/professional journals and websites.	

Subject Code	AF5344
Subject Title	Investments
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	This course provides a comprehensive coverage of the basic concepts, theories, applications and decision-making rules for financial investments. A balance between theories and applications, particularly in the Asian securities markets, would be emphasized. This subject contributes towards the achievement of the programme objectives, in particular apply conceptual frameworks drawn from economics and quantitative method to the analysis of investment issues (MSc AFA Programme Outcome 1), and formulate financial strategies and envision their outcomes.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Understand modern portfolio theory and its use in the investment management process; b. Apply various valuation methods on different financial securities including equity, bonds, and derivatives; c. Understand the process of portfolio management and portfolio performance evaluation; d. Understand the challenges and opportunities in applying FinTech and data analytical skills in investment management.
Subject Synopsis/ Indicative Syllabus	**The Investment Environment** Typical investment instruments; investment process; risk free assets; market indexes and benchmarks; mutual funds. Trading mechanisms; trading costs; bid-ask spreads; short sales.

	Portfolio Theory Historical return and risk; risk-return trade-off; risk premium. Asset allocation; risk-free lending and borrowing. Diversification and portfolio risk reduction; optimal risky portfolios. **Asset Pricing Models** Capital Asset Pricing Model (CAPM); index models; systematic risk; firm-specific risk; estimating beta; multi-factor models. **Efficient Market Hypothesis** Efficient market hypothesis; market anomalies. Behavioural finance; behavioural biases; Prospect Theory; limits to arbitrage. Factor investing strategies. **Fundamentals of Equity Valuation** Introduction to valuation models; DCF model; relative valuation. Implications of financial bubbles and crises for equity valuation. **Fixed Income Securities** Debt securities; yield to maturity. Term structure of interest rates, forward rates; theories of term structure. Fixed income portfolio management; interest rate risk; duration; immunization strategies. **Performance Evaluation and Active Portfolio Management** Performance measures; risk adjustment; Sharpe ratio; Alpha; market timing; performance attribution. Active portfolio management. **Fundamentals of Derivatives Securities** Options; option payoffs; option pricing; option strategies; use of derivatives in portfolio management.
Teaching/Learning Methodology	The theoretical aspects of this course will be covered in the class through lectures. This allows direct contact and discussion between lecturer and students. Assignments, newspaper articles, and case studies will be used to illustrate the application of the ideas, and to encourage independent learning skills. These discussions would play a critical role in achieving the learning objectives set out for the programme (MSc AFA Programme Outcome 1).

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
		a	b	c	d		
1. Class Discussion and Participation	10%	✓	✓	✓	✓		
2. Mid-Term Test (Individual essay)	20% (5%)	✓	✓		✓		
3. Project (Individual essay)	20% (10%)	✓		✓	✓		
4. Final Examination	50%	✓	✓	✓	✓		
Total	100 %						

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Class participation – Students should read assigned readings before the class to prepare for better learning and possible Q&A sessions in class.

Homework assignments test students on their understanding of investments theories and valuation methods.

Group project – the stock portfolio management project applies portfolio theory in the investment management process and portfolio performance evaluation.

Final examination – 3 hours closed book examination with compulsory questions covering all the intended learning outcomes.

Individual writing tasks in English contribute to 30% of the continuous assessment (=10% from mid-term test + 20% from project report).

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.

To reflect the significant technology content in this subject, 10% of the overall weighting of this subject is based on individual assessment

	concerning technology-related knowledge.	
Student Study Effort Expected	Class contact:	
	▪ Lectures / Seminars	39 Hrs.
	Other student study effort:	
	▪ Reading	39 Hrs.
	▪ Homework and Project	39 Hrs.
	Total student study effort	117 Hrs.
Reading List and References	Bodie, Zvi, Alex Kane and Alan J. Marcus, Essentials of Investments, 12th edition, 2021, McGraw-Hill/Irwin, International edition. (Required Textbook) Bodie, Zvi, Alex Kane and Alan J. Marcus, Investments, 12th edition, 2021, McGraw-Hill/Irwin. Malkiel, Burton G., A Random Walk Down Wall Street: The Time-Tested Strategy for Successful Investing, 12th Edition, 2020, W.W. Norton & Company. Reilly, Frank K., Keith C. Brown, and Sanford J. Leeds, Investment Analysis and Portfolio Management, 11th edition, 2019, Cengage Learning. Topical readings from the financial press about local and international markets.	

Subject Code	AF5351
Subject Title	Derivatives Securities
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	Pre-requisite: Investments (AF5344)
Objectives	This subject contributes to the achievement of the Master of Finance Programme Outcomes by enabling students to solve asset management/corporate finance problems (Outcome 2).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. have an in-depth understanding of the derivative assets such as options, futures, and forwards; b. price and formulate different trading strategies of derivatives traded in the financial market; c. use derivative assets in hedging and trading from the perspectives of a corporate treasurer or trader; d. construct and price complex derivative financial instruments; and e. use technology related to data science to construct, price and analyze trading strategies involving derivative securities (Outcome 2b)
Subject Synopsis/ Indicative Syllabus	**Derivative Assets and Markets** Characteristics of forward, futures, options and swaps; market structures and conventions. **Pricing and Trading Strategies of Futures** Properties of forward and futures prices; forward and futures pricing model; futures trading strategies. **Pricing and Trading Strategies of Options** The Binomial model; the Black-Scholes Model: assumptions, adjustments and applications; option trading strategies including spreads, straddles, straps and strips; applying the tools in data science in the analysis. **Hedging and Trading Strategies for Options and Futures** Hedging concepts; types of hedges; determination of hedge ratios.

<table>
<tr><td>Teaching/Learning Methodology</td><td>Most of the material will be covered in a lecture format but class participation is strongly recommended for students to obtain the most out of this course.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>To assess whether the students achieved the learning outcomes of this subject, the focus of mid-term examination will be on the use and the principle of pricing of forward and futures. Students are also required to do a group project to demonstrate their in-depth understanding of various derivative instruments. The final examination will have an emphasis on the pricing and formulation of the trading strategies of derivative instruments and the usage of derivative securities in the hedging and trading from a corporate treasurer or trader’s perspective.
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td></td></tr>
<tr><td>1. Individual Assignments</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>2. Group Project and Presentation</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>3. Participation</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>4. Final Examination</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>
To reflect the significant technology content in this subject, 10% (or more) of the overall weighting of this subject is based on individual assessment concerning technology-related knowledge.

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
</table>

Student Study Effort Expected	Class contact:	
	▪ Seminars	39 Hrs.
	Other student study effort:	
	▪ On average, students are expected to spend around 8 hours (for seven week block mode) for reading materials/ textbook and to answer questions and solve numerical problems a weekly basis.	56 Hrs.
	▪ Group project discussions and preparation	22 Hrs.
	Total student study effort	117 Hrs.
Reading List and References	**<u>Indicative Reading</u>** Chance, D., & Brooks, R., *An Introduction to Derivatives and Risk Management*, 10th edition, Cengage, 2016. Hull, J., *Fundamentals of Futures, Options Markets*, 10th edition, Pearson, 2018. Hull, J., *Options, Futures, and Other Derivatives*, 11th edition, Pearson, 2021. MacKenzie, D., *An Engine, Not a Camera: How Financial Models Shape Markets*, MIT Press, 2008. Black, F., & Scholes, M. (1973) "The pricing of options and corporate liabilities", *Journal of Political Economy* 3, 637-654. Merton, R. C. (1973) "The theory of rational option pricing", *Bell Journal of Economics and Management Sciences* 4, 141-183. Cox, J. C., Ross, S. A., & Rubenstein, M. (1979) "Option pricing: A simplified approach", *Journal of Financial Economics* 7, 229-263. Statman, M. (2009) "Regulating financial markets: Protecting us from ourselves and others", *Financial Analysts Journal*, vol. 65, 3, 1-10.	

Subject Code	AF5353
Subject Title	Security Analysis and Portfolio Management
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	Have good knowledge of using basic functions and commands in EXCEL
Objectives	There are two major emphases in this course. The first part of the course focuses on portfolio analysis and the second part of the course focuses on investment management process. This subject helps achieve the Outcomes by enabling students to apply theories and professional knowledge to conduct portfolio analysis with real investment problems and solve portfolio management issues (Outcome 2), and to critically examine the internal and external situations relate to investment problems (MSc AFA Programme Outcome 1). This subject also enables students to understand the roles of financial technologies (such as artificial intelligence (AI), big data, cloud computing and others) in the financial markets.
Intended Learning Outcomes	Upon successful completion of this course, students should be able to: a. Understand Risk and Return in the financial markets b. Give recommendation of investment plans based on investors' circumstance including policy statement, asset allocation strategy, mutual fund selection, and the portfolio construction c. Apply single-factor and multifactor models to construct real equity portfolios d. Evaluate the performance of equity funds with up-to-date performance measures e. Understand and evaluate how the new technologies, including artificial intelligence (AI), big data and data analytics, and cloud computing influence the development of the financial markets.

Subject Synopsis/ Indicative Syllabus	**The Mean-Variance Analysis and Portfolio Optimization in Practice** The issues in the use of the mean-variance optimization in practice and possible solutions for them **Asset Pricing Models and Factor Models** The single-factor model and multi-factor models; the correlation structures of security returns under asset pricing models; and the applications of asset pricing models in equity portfolio construction **Investment Management Process** Policy statement, asset allocation strategy, portfolio construction and implementation, and international issues **Equity Portfolio Management Strategies** Asset allocation strategies; active, passive and semi-active portfolio management strategies **Portfolio Performance Evaluation and Risk Measure** Holding-based portfolio performance measures; and an introduction of downside risk measures and the Value-at-Risk measure **Alternative Investment and Structured Securities** An introduction of alternative investments, hedge fund strategies and pricing structured securities **Behavioral Finance (Optional)** The impact of heuristic-driven biases on investment decision making including representativeness, overconfidence, anchoring-and-adjustment, and aversion to ambiguity
Teaching/Learning Methodology	Key concepts and techniques will be introduced through lectures. The course places a lot of emphasis on project work. Students will be required to deliver a project which emphases on real-world investment issues. By completing the project, students should have hands-on experience in using the knowledge they have learned in class to solve investment problems in practice. Students are encouraged to share their views and experiences actively with their lectures and classmates.

<table>
<tr><td></td><td></td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="5">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td></tr>
<tr><td>1. Class Participation</td><td>5%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>2. Project & Assignment</td><td>25%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>3. Individual Report</td><td>10%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>4. Midterm</td><td>25%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>5. Final examination</td><td>35%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="5"></td></tr>
</table>
Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.

To reflect the significant technology content in this subject, 10% (or more) of the overall weighting of this subject is based on individual assessment concerning technology-related knowledge.

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.
</td></tr>
<tr><td rowspan="3">Student Study Effort Expected</td><td>Class contact:</td><td></td></tr>
<tr><td>▪ Lectures / Seminars</td><td>39 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
</table>

<table>
<tr><td rowspan="3"></td><td>▪ Reading materials / textbook questions</td><td>39 Hrs.</td></tr>
<tr><td>▪ On average around 16 hours will be spent on the individual critique and around 20 hours for the group project discussion, presentation and written report</td><td>36 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>114 Hrs.</td></tr>
<tr><td>Reading List and References</td><td colspan="2">Reference

Essentials of Investment, 9th edition, Zvi Bodie, Alex Kane and Alan Marcus (McGraw-Hill/Irwin, 2012)

Modern Portfolio Theory and Investment Analysis, 8th edition, Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, and William N. Goetzmann (John Wiley & Sons, 2011)

Analysis of Investments and Management of Portfolios, 10th edition, Frank K. Reilly and Keith C. Brown (South-Western, 2012)

Other Reference

<table>
<tr><th>Title</th><th>Authors</th><th>Why?</th></tr>
<tr><td>(Other good textbooks)</td><td></td><td></td></tr>
<tr><td>Investment</td><td>Zvi Bodie, Alex Kane and Alan Marcus</td><td>An advanced version of Essentials of Investment</td></tr>
<tr><td>Investment Science</td><td>David Luenberger</td><td>First course in Quantitative Finance (Intermediate Investment)</td></tr>
<tr><td>Statistical Models and Methods for Financial Market</td><td>TL Lai and H. Xing</td><td>Best statistical modeling book</td></tr>
<tr><td>Algorithmic Trading and DMA</td><td>Barry Johnson</td><td>First course in algorithmic trading and orders splitting</td></tr>
</table></td></tr>
</table>

	(Investment in Practice)		
	Active Portfolio Management	Richard Grinold and Ronald Kahn	A Quantitative Approach for Providing Superior Returns and Controlling Risk
	The Intelligent Investor	Benjamin Graham	Best book of practice in Value Investing
	A random walk down wall street	Burton G. Malkiel	Individual investors are better off buying and holding onto index funds
	A non-random walk down wall street	Andrew Lo and A. C. MacKinlay	views again the previous book
	Fooled by randomness	Nassim N. Taleb	Lucky or Skill?
	Black Swan	Nassim N. Taleb	All the swans are white?
	Irrational Exuberance	Robert J. Shiller	Internet Bubble 1998-2001, most famous word of Nobel Laureates
	(Investment Banking)		
	Monkey Business	John Rolfe and Peter Troob	Entry level iBanker's life
	Barbarians at the Gate	Bryan Burrough and Johb Helyar	M&A classic book (usually higher level)

Reading list and references	(1). Bratko, I., 2001, PROLOG, Programming for Artificial Intelligence, 3rd edition, Addison-Wesley. (2). Luger, G.F., 2009, Artificial Intelligence: Structures and Strategies for Complex Problem Solving, 6th edition, Addison-Wesley. (3). Russell, S. and Norvig, P., 2003, Artificial Intelligence - A Modern Approach, 2nd edition, Prentice Hall. *Papers and articles selected from:* Artificial Intelligence AI Expert AI Magazine Applied Intelligence IEEE Computer IEEE Intelligent Systems and their Applications IEEE Trans. Neural Networks

Subject Code	AF5364
Subject Title	Quantitative Methods for Accounting and Finance
Credit Value	3
Level	5
Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	Recommended Background Knowledge: Undergraduate level statistical analysis; quantitative analysis; and microeconomics.
Objectives	This subject covers the basic concepts and techniques of classical econometrics, such as sampling theory, probability theory, hypothesis testing, regressions, etc. Considerable attention is devoted to the applications of the concepts and techniques to accounting and finance. We will review basic financial mathematics and some advanced statistical techniques will also be briefly introduced. This subject is also designed for those who wish to take the Chartered Financial Analysts (CFA) examinations. This subject contributes to the achievement of the MSc in Accounting and Finance Analytics programme learning outcomes by enabling students to understand the fundamental quantitative and technological methods in accounting and finance (MSc AFA Programme Outcome 2).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Develop a systematic understanding of the fundamental statistical and econometric concepts and methodologies; b. Apply the concepts and methodologies to explain issues related to accounting and finance; and c. Develop ability to resolve real world accounting and finance problems by applying the quantitative methods to data analysis.
Subject Synopsis/ Indicative Syllabus	**Basic Financial Mathematics (Review)** Compounding and discounting; present value and future value calculations; annuities and perpetuities; dollar and time-weighted rate of return.

	Basic Statistics Concepts Types of statistical data; measures of central tendency and dispersion. **Probability Concepts** Basic concepts of probability; random variables and probability; probability theorems; covariance and correlation; expected value and variance; probability distributions. **Sampling and Estimation** Random sampling and sampling distributions; point and interval estimates; confidence intervals. **Hypothesis Testing and Statistical Inference** The concepts of hypothesis testing; types of hypothesis testing; analysis of variance. **Regression Analysis** Linear regression and correlation; multiple regression analysis.
Teaching/Learning Methodology	Concepts and techniques will be introduced through lectures. Students are required to apply the knowledge and skills in doing exercises and project. The use of relevant computer package is required.

Subject Code	AF5365
Subject Title	Applications of Computing and Technology in Accounting and Finance I
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	This subject is designed to study the scientific computing skills and apply the skills in accounting and finance. The subject covers basic stochastic modeling, uses Python/R/VBA to value different financial products and do static/dynamic risk hedging and cash flow replications using Monte Carlo method, Variance Reduction method, Metropolis Hasting and Gibbs sampler, and other methods. Direct Market Access is introduced with the applications in electronic trading using scientific computing tools. After studying this subject, the student should master the necessary analytical tools for further study and work. This subject contributes to the achievement of the MSc in Accounting and Finance Analytics programme learning outcomes by enabling students to apply technology and data analytics skills to solve accounting and finance problems faced in real-life situations in an ethical manner (Outcome 3).
Intended Learning Outcomes	Upon successful completion of this course, students should be able to: e. Master the basic scientific computing skills f. Achieve the direct market access g. Understand the risk measures and their calculation using the real data h. Utilize the Monte Carlo methods to simulate the financial products' dynamics and implementing pricing models of derivatives
Subject Synopsis/ Indicative Syllabus	**Business Ethics** The issues in applying business technology and analytical tools in an ethical way. **Basic Scientific Computing** The issues in the use of scientific computing software packages such as Python/R/VBA. **Monte Carlo Methods (including Derivative Pricing)** How to implement the Monte Carlo methods to simulate the financial products' dynamics, valuate the derivative products' prices and formulate corresponding static / dynamic hedging strategies; scenario analysis in financial statements and stress test. **Electronic Trading / Direct Market Access (DMA)** Utilize the Application Programming Interface (API) to achieve the direct market access; understand the basic order types and how to construct the electronic trading platforms. **Risk Measures** Introduce the risk measures and know how to calculate the measures using scientific computing based on the data from DMA.

<table>
<tr><td>Teaching/Learning Methodology</td><td>Key concepts and techniques will be introduced through lectures. The subject places a lot of emphasis on project work. Students will be required to deliver a project which emphasizes on real-world accounting and finance issues. By completing the project, students should have hands-on experience in using the knowledge they have learnt in class to solve accounting and finance problems in practice. Students are encouraged to share their views and experiences actively with their lecturer and classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="5">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td></td></tr>
<tr><td>1. Class participation</td><td>5%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td></tr>
<tr><td>2. Quizzes & assignment</td><td>25%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td></tr>
<tr><td>3. Group Project</td><td>20%</td><td>√</td><td>√</td><td></td><td></td><td></td></tr>
<tr><td>4. Final examination</td><td>50%</td><td>√</td><td>√</td><td>√</td><td>√</td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="5"></td></tr>
</table>

Class participation – Students have to read assigned reading materials and complete exercises to participate actively in class discussion, which would assess their understanding of the key concepts and techniques, and their applications.

Quizzes & assignment – are used to test students' ability in understanding the materials and in achieving the intended learning outcomes through a more in-depth investigation of different topics.

Group Project – Group project will be used for students to apply what is taught in class and allow the students to learn from one another.

Final Examination – Final examination are used to test students' overall ability in applying the knowledge learnt in the subject.

Note: The specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
<tr><td>Student Study Effort Expected</td><td>Class contact:</td><td></td></tr>
<tr><td></td><td>▪ Lectures / Seminars</td><td>39 Hrs.</td></tr>
<tr><td></td><td>Other student study effort:</td><td></td></tr>
<tr><td></td><td>▪ Reading materials / textbook questions</td><td>39 Hrs.</td></tr>
</table>

	▪ On average around 16 hours will be spent on the individual critique and around 20 hours for the group project discussion, presentation and written report	36 Hrs.
	Total student study effort	114 Hrs.
Reading List and References	***References*** *Monte Carlo Methods in Financial Engineering*, 2003 Edition, P. Glasserman, Springer *Algorithmic Trading and DMA: An introduction to direct access trading strategies,* 2010 Edition, Barry Johnson, 4Myeloma Press.	

Subject Code	AF5366
Subject Title	Applications of Computing and Technology in Accounting and Finance II
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	AF5365 Applications of Computing and Technology in Accounting and Finance I
Role and Purposes	This subject is designed to study the new developments in accounting and finance technology. Students are provided with the knowledge and practical skills necessary to develop a strong foundation on core paradigms and algorithms of machine learning (ML), with a particular focus on applications of ML to various practical problems in Accounting and Finance. With the scientific computing skills and necessary theoretical background in AI and ML, students learn how to implement the Python/R/VBA to achieve the algorithms and apply the skills in High Frequency Modelling, Portfolio Analytics, Financial Statement Fraud, and others. Application Programming Interface (API) will be introduced for students to understand Direct Market Access (DMA) and automatic information collection, data analyses, and order execution. This subject contributes to the achievement of the MSc in Accounting and Finance Analytics programme learning outcomes by enabling students to apply technology and data analytics skills to solve accounting and finance problems faced in real-life situations in an ethical manner (Outcome 3).
Subject Learning Outcomes	Upon successful completion of this subject, students should be able to: i. Understand the applications of artificial intelligence and machine learning in accounting and finance j. Implement the computing tools to achieve some AL and ML algorithms k. Understand the algorithmic trading systems and trading strategies
Subject Synopsis/ Indicative Syllabus	**An introduction to Artificial Intelligence and Machine Learning** Start from the regression function and bias variance trade-off to demonstrate their applications in accounting and finance practice. **Classification/Prediction Problems** Introduce the predictive models, Machine Learning, and the corresponding trading strategies with implementation using scientific computing tools. **Clustering/Recommendation Systems** Introduce algorithms to identify clusters in real life sample and to build recommendation systems. **Algorithmic Trading Systems** Utilize the Application Programming Interface (API) and existing trading strategy to

<table>
<tr><td></td><td>systematically collect exchange data, analyze the data, and automatically execute the orders and the risk control systems.</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>Key concepts and techniques will be introduced through lectures. The subject places a lot of emphasis on project work. Students will be required to deliver a project which emphasizes on real-world accounting and finance issues. By completing the project, students should have hands-on experience in using the knowledge they have learnt in class to solve accounting and finance problems in practice. Students are encouraged to share their views and experiences actively with their lecturer and classmates.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="4">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td></td></tr>
<tr><td>1. Class participation</td><td>5%</td><td>√</td><td>√</td><td>√</td><td rowspan="4"></td></tr>
<tr><td>2. Project & Quiz</td><td>25%</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>3. Mid-term test</td><td>20%</td><td>√</td><td>√</td><td></td></tr>
<tr><td>4. Final examination</td><td>50%</td><td>√</td><td>√</td><td>√</td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="4"></td></tr>
</table>
Note: To pass this subject, students are required to obtain Grade D or above in BOTH the Continuous Assessment and Examination components. In addition, the specific requirements on individual assessment components discussed above could be adjusted based on the pedagogical needs of subject lecturers.</td></tr>
<tr><td>Student Study Effort Expected</td><td>
<table>
<tr><td>Class contact:</td><td></td></tr>
<tr><td>▪ Lectures / Seminars</td><td>39 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Reading materials / textbook questions</td><td>39 Hrs.</td></tr>
<tr><td>▪ On average around 16 hours will be spent on the individual critique and around 20 hours for the group project discussion, presentation and written report</td><td>36 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>114 Hrs.</td></tr>
</table>
</td></tr>
</table>

Reading List and References	***References*** *Pattern Recognition and Machine Learning,* Christopher Bishop. Springer, 2007. *How Big Data Will Change Accounting*, J. Donald Warren, Jr, Kevin C. Moffitt, and Paul Byrnes, *Accounting Horizons*, 2015. *Big Data in Finance*, Itay Goldstein, Chester S. Spatt, and Mao Ye, *The Review of Financial Studies*, 2021.

Subject Code	AF5937
Subject Title	Accounting and Finance Analytics Project
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	This subject allows students to integrate theory with practice through intensive and extensive investigations to come up with a quality report with relevant findings and sound recommendations. It aims to develop and measure the students' abilities to analyze and solve a complex problem. This subject contributes to the achievement of the MSc in Accounting and Finance Analytics programme learning outcomes by enabling students to apply technology and data analytics skills to solve accounting and finance problems faced in real-life situations in an ethical manner (MSc AFA Programme Outcome 3)
Intended Learning Outcomes	Upon completion of the project, students should be able to: a. identify problem areas or critical issues that are related to various functions of accounting and finance; b. design and select the appropriate research methodologies by making reference to well-established literature; c. collect and analyse relevant data, provide solutions to problems and draw appropriate conclusions; d. carry out their study in a logical, disciplined and timely manner; and e. apply appropriate presentation skills to write up a project report in a clear, concise, precise and systematic manner.
Subject Synopsis/ Indicative Syllabus	There is no formal syllabus. Students are required to carry out, under the supervision of their supervisors, a series of activities which are set out in the Project Manual.

<table>
<tr><td>Teaching/Learning Methodology</td><td>An introduction seminar will be given at the beginning to explain the key issues of the subject; students are then required to carry out their 3-credit projects in consultation with their supervisors.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td></td></tr>
<tr><td>1. Proposal write-up</td><td>25%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>2. Final written report</td><td>75%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>
Explanation of the appropriateness of the assessment methods in assessing the outcomes:

The project proposal enables students to identify the problem area or critical issues and design and select the appropriate research methodologies. The final project report allows students to conduct their study and come up with sound recommendations.

Note: The minimum passing grade of this subject is D.
</td></tr>
<tr><td rowspan="5">Student Study Effort Required</td><td>Class contact:</td><td></td></tr>
<tr><td>▪ Discussion with project supervisors</td><td>14 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Self-study</td><td>115 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>129 Hrs.</td></tr>
<tr><td>Reading List and References</td><td colspan="2">(Specific to the project topic)</td></tr>
</table>

Subject Code	MM5412
Subject Title	Business Intelligence and Decisions
Credit Value	3
Level	5
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	Business intelligence (BI) encompasses tools, systems, methodologies and applications, all of which are integrated, with the purpose to improve business decision making. BI is evolving from its origins as primarily a support tool for executives and is quickly becoming a commodity shared by managers, decision makers and analysts across organizations. This course is to introduce the students to these various analytical tools and methodologies to support business decisions making.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Perceive how the business intelligence (BI) can help in decision-making and improvement for a complex business environment. b. Evaluate and select BI tools for the improvement of productivity and efficiency of an organization. c. Apply BI to support better business decision-making.
Subject Synopsis/ Indicative Syllabus	1. Overview of Business Intelligence & Data Mining 2. Use of Probability & Statistics as Foundation 3. Use of Different Tools as Business Intelligence in supporting Decision Making a. Hypothesis Testing b. Linear & Multiple Regression c. Stepwise Regression d. Time Series Analysis e. Factor Analysis f. Structure Equation Modelling g. Data Visualization (Optional) The course will use different computer tools, such as Excel, SPSS and SmartPLS.

<table>
<tr><td>Teaching/Learning Methodology</td><td>The course will use a variety of methods (lecture, seminar, computer lab sessions, classwork or take-home exercises, take-home readings, quizzes, project and presentation…) as its pedagogy to help students achieve the above learning outcomes. Classroom attendance and class participation are important. Students' background and work experience will help one another learn and grow. Students are expected to pay active participation in class, help one another in doing computer exercises, and to finish assigned readings and assignments in order to achieve the learning purposes.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td></td><td></td><td></td></tr>
<tr><td>Continuous Assessment</td><td>100%</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>1. Classroom Performance</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>2. Individual Assignments</td><td>30%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>3. Group Project</td><td>20%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>4. Comprehensive Quiz</td><td>30%</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
</table>
Notes:

Weighting of assessment methods/tasks in continuous assessment may be different, subject to each subject lecturer.
To pass this subject, students are required to obtain Grade D or above in the overall subject grade.

To reflect the significant technology content in this subject, 10% (or more) of the overall weighting of this subject is based on individual assessment concerning technology-related knowledge.
Explanation of the appropriateness of the assessment methods in assessing the intended learning outcome:

Classroom performance (overall participation) includes the students' active participation, feedback and contribution in class as well as classwork, take-home exercises and surveys. Its purpose to assess students' understanding of key technique in individual topics of BI.
Individual assignments will be used to assess individual students' comprehensive power, critical thinking, analytical ability and written skill.

</td></tr>
</table>

<table>
<tr><td></td><td colspan="2">3. Group project enables the students to work as a team to do a more in-depth study of a selected topic and apply BI on real business situation. It is to assess their knowledge as well as their research, presentation and written skills.
4. The quiz is a good tool to test students' understanding of the concepts, and the capability to handle data and apply BI tools and methods.
All above various methods are designed to ensure that all students taking this subject to have a balanced learning experience.</td></tr>
<tr><td rowspan="6">Student Study Effort Expected</td><td>Class contact:</td><td></td></tr>
<tr><td>▪ Lectures & tutorials</td><td>39 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Preparation for lectures & tutorials</td><td>39 Hrs.</td></tr>
<tr><td>▪ Take-home exercises, individual assignment, group project & presentation, and quiz.</td><td>78 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>156 Hrs.</td></tr>
<tr><td>Reading List and References</td><td colspan="2"><u>Reference Books</u>:
There is NO single best textbook book that can cover everything for this course.
The following reference books will be useful for individual topics.

1a. Sharda, R., Delen, D., & Turban, E. (2018). Business intelligence, analytics, and data science: A managerial perspective (Fourth ed.). Boston: Pearson.
1b. Sharda, R., Delen, D., & Turban, E. (2015). Business intelligence and analytics: Systems for decision support (Tenth ed.). Boston: Pearson.
2a. Shmueli, G., Bruce, P. C., Gedeck, P. G., & Patel, N. P. (2019). Data Mining for Business Analytics: Concepts, Techniques and Applications in Python. John Wiley & Sons.
2b. Shmueli, G., Bruce, P. C., Yahav, I., Patel, N. R., & Lichtendahl Jr, K. C. (2017). Data mining for business analytics: concepts, techniques, and applications in R. John Wiley & Sons.
2c. Shmueli, G., Bruce, P. C., & Patel, N. R. (2016). Data mining for business analytics: Concepts, techniques, and applications in Microsoft Office Excel with XLMiner (3rd ed.). Hoboken, N.J.: Wiley.</td></tr>
</table>

	3. Vercellis, C. (2011). *Business intelligence: data mining and optimization for decision making*. New York: Wiley. 4. Ahlemeyer-Stubbe, Andrea, & Coleman, Shirley. (2014). *A Practical Guide to Data Mining for Business and Industry*. Chichester, UK: John Wiley & Sons. 5. Bowerman, B. L., Drougas, A. M., Duckworth W. M., Froelich A. G., Hummel R. M., Moninger K. B., Schur, P. J. (2019). *Business statistics and analytics in practice* (Ninth ed.). NY: McGraw-Hill. 6. Doane, D. P., & Seward, L. W. (2019). *Applied statistics in business and economics*. NY: McGraw-Hill. **Journals:** MIS Quarterly MIS Quarterly Executive Information Systems Research Management Science Production and Operations Management

Subject Code	COMP5112
Subject Title	Data Structures and Database Systems
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	The objectives of this subject are to: 1. apply data structures, sorting and searching algorithms in developing computer programs; 2. use and administrate a database system properly.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. demonstrate a comprehensive understanding of data structures, sorting and searching algorithms; b. apply database systems and the associated tools in real-life problems; c. apply the principles and practices of good database design and analysis in real-life problems.
Subject Synopsis/ Indicative Syllabus	**1. Data structures: representation and algorithms** Linear structures: linked-lists, stacks, queues; tree structures: binary trees, balanced trees, tree traversals; other common data structures: priority queues, heaps. **2. Sorting and searching algorithms** Common sorting algorithms: bubble sort, insertion sort, selection sort, quick sort, merge sort, heap sort. **3. Basic concepts of database system** Database and its applications; DBMS design objectives and its components; data independence. **4. Relational data model** Relational structure; relational algebra; SQL; relational constraints. **5. Database design** Entity-relationship model; functional dependencies; normalization. **6. Data storage and querying** File organization; indexing and hashing; query processing.

<table>
<tr><td>Teaching/Learning Methodology</td><td>This subject emphasizes the technical aspects of data structures and practical aspects of database systems. It is intended to equip the student with knowledge and experience on solving real-life problems by using data structures and database systems.

The lectures will be used to deliver course material.

Labs and tutorials will be used to practice exercises.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="3">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td></tr>
<tr><td>1. Quizzes and Assignments</td><td>55</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>2. Exam</td><td>45</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Total</td><td>100</td><td colspan="3"></td></tr>
</table>
</td></tr>
<tr><td>Student Study Effort Expected</td><td>
<table>
<tr><td>Class contact:</td><td></td></tr>
<tr><td>▪ Lecture</td><td>26 Hrs.</td></tr>
<tr><td>▪ Tutorial/Lab</td><td>13 Hrs.</td></tr>
<tr><td>Other student study effort:</td><td></td></tr>
<tr><td>▪ Assignments, reading book chapters</td><td>65 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>104 Hrs.</td></tr>
</table>
</td></tr>
<tr><td>Reading List and References</td><td>1. Frank M. Carrano, Data Abstraction & Problem Solving with C++: Walls & Mirrors, 7th Edition, Pearson, 2017.

2. Goodrich, M.T. and Tamassia, R., Data Structures and Algorithms in Java, 6th Edition, John Wiley, 2014.

3. A Silberschatz, H.F. Korth, S. Sudarshan. Database System Concepts 6th Edition. McGraw Hill, 2011.

4. Hector Garcia-Molina, Jeffrey D. Ullman & Jennifer Widom. Database System Implementation, Prentice Hall, 3rd Edition, 2008.</td></tr>
</table>

Subject Code	COMP 5511
Subject Title	Artificial Intelligence Concepts
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	The objectives of this subject are to: 1. introduce the main concepts, ideas and techniques of artificial intelligence (AI); 2. facilitate the implementation of some basic AI techniques.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. master the important searching techniques for problem solving and use them in game playing; b. know how to represent knowledge and use them in inferences and reasoning; c. manage uncertainty and reason in uncertainty situations; d. critically review and consolidate existing knowledge to design and develop knowledge based expert systems; e. use basic machine learning techniques to solve different data analytic problems; f. able to incorporate advanced deep learning and artificial neural networks techniques;
Subject Synopsis/ Indicative Syllabus	• **Search Strategies and games** Concepts relating to problem space, space graphs, instances, initial and goal states, breath-first, depth-first, bidirectional, uniform cost, heuristic, greedy best first, hill-climbing, local beam search, A* search, games vs search, types of games, Minimax algorithm, αβ-algorithm and pruning, deterministic and non-deterministic games. • **Knowledge Representation, Reasoning and Planning** Predicate logic, first order logic, inference, semantic networks, frames and scripts, multiple inheritance, production rules, inference, forward and backward chaining, conflict resolution. • **Knowledge Based Expert Systems** Knowledge acquisition, expert system shell, expert system architecture, inference engine, explanation facility. • **Uncertainty Management and Reasoning** Bayesian probability, Bayesian network, MYCIN uncertainty factor, Dempster-Shafer Theory of Evidence, Fuzzy logic. • **Learning** Supervised, unsupervised, semi-supervised and reinforcement learning, symbolic and connectionist approaches, decision trees, *k*-means, neurons and artificial neural networks, multi-layer perceptron, CNN and RNN concepts. • **Selected Advanced Topics:** Natural Languages Processing, Computer Vision and Speech Recognition, Robotics.

<table>
<tr><td>Teaching/Learning Methodology</td><td>This course explores the core AI concepts. It provides a comprehensive introduction to the problems and techniques of artificial intelligence. Theory and practice are both emphasized. To enhance the understanding of how conceptions and ideas in AI are actually implemented, prolog and expert system shells will be used for programming exercises and projects. Lectures will be supplemented with video sessions to enhance student's learning. A fair portion of guided reading will also be provided.

39 hours of class activities including - lecture, tutorial, lab, workshop seminar where applicable.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific Assessment Methods/Tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td>f</td></tr>
<tr><td>Assignments, Tests & Projects</td><td>55</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Final Examination</td><td>45</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Total</td><td>100</td><td colspan="6"></td></tr>
</table>
</td></tr>
<tr><td>Student study effort expected</td><td>
<table>
<tr><td colspan="2">Class Contact:</td></tr>
<tr><td>Class activities (lecture, tutorial, lab)</td><td>39 hours</td></tr>
<tr><td colspan="2">Other student study effort:</td></tr>
<tr><td>Assignments, Quizzes, Projects, Exams</td><td>65 hours</td></tr>
<tr><td>Total student study effort</td><td>104 hours</td></tr>
</table>
</td></tr>
</table>

Reading list and references	(4). Bratko, I., 2001, PROLOG, Programming for Artificial Intelligence, 3rd edition, Addison-Wesley. (5). Luger, G.F., 2009, Artificial Intelligence: Structures and Strategies for Complex Problem Solving, 6th edition, Addison-Wesley. (6). Russell, S. and Norvig, P., 2003, Artificial Intelligence - A Modern Approach, 2nd edition, Prentice Hall. *Papers and articles selected from:* Artificial Intelligence AI Expert AI Magazine Applied Intelligence IEEE Computer IEEE Intelligent Systems and their Applications IEEE Trans. Neural Networks

This Programme Requirement Document is subject to review and changes, which the programme offering Faculty/Department /School/College may decide to make from time to time. Students will be informed of the changes as and when appropriate.

The information in this document is correct at the time of production (September 2023), and is subject to review and change.

THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

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