

COURSE OUTLINES: BF2201/BF2219 Investments

Academic Year	2022/23	Semester	2
Course Coordinator	Asst Prof Dawoon Kim		
Course Code	BF2219		
Course Title	Investments		
Pre-requisites	AB1201 or RE8005. All students (especially students who were exempted from taking AB1201 Financial Management) should review the AB1201 Financial Management material before attending the BF2219 Investments course.		
No of AUs	3		
Contact Hours	3		
Proposal Date	November 20, 2022		
A) Course Aims/Description			
<p>This is an introductory but demanding course in investments. This course endeavours to provide the basic understanding and tools to conduct portfolio analysis, make investment decisions, and manage portfolios. By the end of this course, students should have a broad understanding of investments and portfolio management. This course covers the analysis of various investment vehicles (equity, bonds, and options), allocation of assets, and modern portfolio theory. Students will learn valuation, portfolio construction and evaluation techniques, and apply investment techniques using Excel.</p> <p>Students are expected to review Financial Management. To maximize acquisition of new knowledge, the instructors will not cover overlapping topics with Financial Management but these topics remain examinable.</p>			
B) Intended Learning Outcomes (ILO)/Objectives			
<p>By the end of this course, students should be able to:</p> <ol style="list-style-type: none"> 1. Explain various financial assets and instruments, and the mechanics, risk, and calculations involved in trading financial assets. 2. Explain the relationship between risk and return, and capital allocation. 3. Explain the optimal risky portfolio and efficient diversification. 4. Apply Capital Asset Pricing Model (CAPM), Arbitrage Pricing Theory (APT), and Multi-factor models. 5. Distinguish different forms in Efficient Market Hypothesis (EMH) and their implications on investment decisions. 6. Evaluate the performance of mutual funds and other portfolios. 7. Interpret the yield curve and the effect of duration and convexity on bond pricing. 8. Explain options trading strategies and pricing. 			

C) Course Content

Each week, we will distribute (electronically, on NTULearn) one deck of slides prior to the start of their seminar session. **Reading the slides prior to the seminar is a mandatory requirement.** During the seminar, we will discuss key conceptual issues related to modern investment theory and learn how to apply the conceptual tools to real-life investment decisions. **Students are expected to read ahead before coming to class and to actively participate in classroom discussion.**

Key topics:

Asset Classes and Financial Instruments;
 Securities Markets and Trading;
 Risk and Return: Past and Prologue;
 Efficient Diversification;
 Index Model; Capital Asset Pricing;
 Arbitrage Pricing Theory; Multi-factor Models;
 The Efficient Market Hypothesis;
 Mutual Funds and Other Investment Companies; Portfolio Performance Evaluation;
 Bond Markets; Managing Bond Portfolios;
 Options Markets and Valuation

D) Assessment (includes both continuous and summative assessment)

Component	ILO Tested	ψ NBS Learning Goal	Weightage	# Team/ Individual	Assessment Rubrics (Refer to appendix)
Coursework					
C1: Homework (x4) (online MCQs)	ILO 1-8	1-3	20%	Individual	N.A
C2: Excel Assignment	ILO 1-5	1-4	15%	Group	Appendix 2
C3: Participations	ILO 1-8	1-3	10%	Individual/Group	Appendix 3
C4: Presentations	ILO 1-8	1-4	10%	Group	N.A
C5: Quiz	ILO 1-8	1-3	45%	Individual	N.A
Total			100%		

C1. Homework (20%) is due at mid-night on the stated due date as specified in the proposed weekly schedule. Please budget enough time to ensure that you have enough time to submit.

The homework is in the form of online Multiple-Answer Questions (MAQs), accessible on NTULearn (<https://ntulearn.ntu.edu.sg/>) under the main BF2201/2219 course website.

There are 4 times in total. Each homework is worth 5%, and a **1% penalty will be deducted from the final score for every day (24 hours) the homework is late. You will not be able**

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C2. Excel assignment (20%) can be done in groups of not less than FOUR (4) and not more than SIX (6) students. Each session is expected to have 8 groups. The report is due in class on week 9. 1% will be deducted for each day of late submission. Please refer to Appendix 2 for the detailed assessment criteria.

C3. Absence from class will affect your participation marks.

This course requires you to be in class to participate in activities and discussions. There will be no make-up opportunities for in-class activities. If you will be absent from a seminar session, you must inform your instructor via email prior to the start of the class.

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C4. Each group is required to present at least once for the course on the pre-assigned questions. Every member is required to present.

C5. The quiz is online and consists of MAQs. The quiz is open-book and 2-hour in duration. The intent of the final quiz is to determine how well you understand the basic principles and tools of investments, and if you are able to apply them to novel as well as routine situations.

The date will be decided by the university. **It is expected to be held on 20st April between 9:30 AM - 12:00 AM. We may have to do it offline via computer labs due to university policy.**

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Peer evaluation is compulsory and incorporated when there is group work as a continuous assessment. See Appendix 3 for the form.

- i Peer evaluation will be conducted in the last seminar of the semester.
- ii Each student will be provided with a form to fill.
- iii Excel assignment and participation marks will be adjusted based on peer evaluation.

E) Formative feedback	
Feedback is central to this course. You will receive written feedback in response to your Excel Assignment report, as instructors will return each report back to each group.	
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Approach	How does this approach support you in achieving the learning outcomes?
Seminar	The interactive seminar session where there are ample opportunities for open discussion on the conceptual investments questions raised in the class allows students to think critically and share their ideas and concept with the class. This also allows the instructors to get the concepts clearly through the entire class by involving students and ensure that the targeted learning outcomes are being achieved.
Individual Homework	The assignments require students to analyse, calculate and interpret various concepts, theories, and practical examples as learned in the class.
Excel Assignment	Apply portfolio theory and investment techniques using EXCEL in groups.
G) Reading and References	
Required Textbook: Essentials of Investments. Zvi Bodie, Alex Kane and Alan J. Marcus. McGraw-Hill, Ed 10e. (Call No. HG4521.B667E, Reserve HG4521.B667). BKM.	
H) Course Policies and Student Responsibilities	
Important Issues to note:	
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instructors as the pace will be different and **your participation scores will not be transferred**. Schedule for all sessions is as shown below.

Session	Day	Time starts	Time ends	Venue	Instructor
1	T	9:30	12:20	S4-SR22	Asst Prof Dawoon Kim*
2	T	14:30	17:20	S4-SR22	Asst Prof Dawoon Kim*
3	TH	9:30	12:20	S4-SR22	Asst Prof Dawoon Kim*

* Course Coordinator

5. If you have a medical condition and need special arrangements for final exam, you must inform the instructor **latest by week 5**. Medical proof must be provided.

6. Cell-phones must be turned off or on vibration mode when in class. Students are expected to be respectful to other students and to the instructor. Errant students will be asked to leave the seminar room. You are allowed to use laptops.

7. Students must abide by the university honour codes. **Copying** solutions from illegal sources (including from senior students) and cheating during quizzes/exam are **serious violations** of the university honour codes. If caught, the student will be reported to the undergraduate office and given an "F" grade for BF2219 immediately.

8. The instructors **DO NOT DISCUSS** past year exam questions. Do **NOT** come to us with this request as the outcome is negative with 100% certainty. The past year exam questions will be incorporated into the lecture and discussed accordingly. There will be no tutorials as all questions will be discussed real-time in class.

9. The **date of the quiz** is fixed by the university and **CANNOT** be changed.

10. The quiz is "Open Book" and 2-hour in duration. Bring along a financial calculator. Importantly, bring yourself.

11. Consultation with instructors is strictly by appointments only.

12. The syllabus is dynamic and subjected to changes. Depending on the progress of the class, the instructor reserves the rights to add/remove topics from the syllabus.

I) Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion, and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

J) Course Instructors				
Instructor	Office Location	Phone	Email	Consultation Hours
Asst Prof Dawoon Kim	S3-B1B-72	6790 6133	Dawoon.kim@ntu.edu.sg	By appointments
K) Planned Weekly Schedule				
<i>** Examinable but covered in Financial Management. Students are expected to know these materials well on their own.</i>				
Week (beginning)	Topic	ILO	Readings/ Activities	
1 (10, 12 Jan)	Overview - Fundamentals of Financial Economics	1	Lecture Notes	
2 (17, 19 Jan)	Overview of Securities Markets* Risk and Return: Past and Prologue**	1	Lecture Notes Ch 2*, 3*, 5** of Textbook (BKM)	
3 (31 Jan, 2 Feb)	Efficient Diversification* Capital Asset Pricing**	2	Lecture Notes Ch 6*, 7** of Textbook (BKM)	
4 (7, 9 Feb)	Capital Asset Pricing* Arbitrage Pricing Theory* Multi-factor Models*	3	Lecture Notes Ch 7* of Textbook (BKM) HW-1 DUE: 12 Feb	
5 (14, 16 Feb)	The Efficient Market Hypothesis* Behavioural Finance**	4	Lecture Notes Ch 8*, 9** of Textbook (BKM)	
6 (21, 23 Feb)	Asset Classes and Financial Instruments*. Securities Markets** Market Microstructure	4	Lecture Notes Ch 1, 2*, 3** of Textbook (BKM)	
	<i>BREAK (27 Feb – 3 Mar)</i>			
7	Mutual Funds and Other	4	Lecture Notes	

(7, 9 Mar)	Investment Companies* Portfolio Performance Evaluation** Problem solving and Q&A		Ch 4*, 18**, 20* of Textbook (BKM) HW-2 DUE: 12 Mar
8 (14, 16 Mar)	Bond Prices and Yields	5	Lecture Notes Ch 10 of Textbook (BKM)
9 (21, 23 Mar)	Managing Bond Portfolios	6	Lecture Notes Ch 11 of Textbook (BKM)
10 (28, 30 Mar)	Other Fixed Income Securities* Securities Markets** Problem solving and Q&A	7	Lecture Notes Ch 10*, 2**, 3** of Textbook (BKM) HW-3 DUE: 2 Apr
11 (4, 6 Apr)	Derivatives 1 Options Markets and Valuation	7	Lecture Notes Ch 15, 16 of Textbook (BKM)
12 (11, 13 Apr)	Derivatives 2 Futures Markets and Valuation Problem solving and Q&A	8	Lecture Notes Ch 17 of Textbook (BKM) HW-4 DUE: 16 Apr

Annex B**List of NBS Learning Goals**

LEARNING GOAL	LEARNING OBJECTIVE	CHECK
TASK SKILLS		
Acquisition of Knowledge	The ability to understand clearly about investments and portfolio management.	<input checked="" type="checkbox"/>
Ethical Reasoning	The ability to recognize and understand ethical issues, and apply sound ethical reasoning.	<input type="checkbox"/>
Critical Thinking & Creative Thinking	The ability to define, examine, evaluate, analyze, and synthesize various arguments and knowledge to form independent judgment.	<input checked="" type="checkbox"/>
	The ability to provide insight in an innovative way characterized by high degree of adaptiveness.	<input type="checkbox"/>
Problem Solving & Decision Making	The ability to identify problem, generate a plan to solve problem, implement and evaluate the plan and make sound business decision.	<input checked="" type="checkbox"/>
Planning & Execution	The ability to set clear priorities and plans of action for the task and define task objectives to fulfill goals within a planned schedule for execution.	<input type="checkbox"/>
PEOPLE SKILLS		
Oral Communication & Written Communication	The ability to communicate well with others verbally so that it clearly expresses the intended message and is understandable and useful to the receiving party.	<input type="checkbox"/>
	The ability to communicate well with others in writing so that it clearly expresses the intended message and is understandable and useful to the receiving party.	<input type="checkbox"/>
Negotiation	The ability to systematically plan and prepare for negotiation and apply negotiation skills in personal and professional practice.	<input type="checkbox"/>
Cultural Intelligence	The ability to function effectively in situations characterized by cultural diversity.	<input type="checkbox"/>
Teamwork & Interpersonal Skills	The ability to work effectively with others in a group setting.	<input checked="" type="checkbox"/>
Motivation & Development of Self & Others	The ability to develop a better understanding of one's strengths and weaknesses, and learn to view others and mistakes positively as sources of personal and professional development.	<input type="checkbox"/>

Please write to NBS Accreditation office (nbsaccro@ntu.edu.sg) for sample rubrics.

Appendix 1: Taxonomy for Learning Outcomes/Objectives

Action Words for Bloom's Taxonomy					
Knowledge	Understand	Apply	Analyze	Evaluate	Create
define	explain	solve	analyze	reframe	design
identify	describe	apply	compare	criticize	compose
describe	interpret	illustrate	classify	evaluate	create
label	paraphrase	modify	contrast	order	plan
list	summarize	use	distinguish	appraise	combine
name	classify	calculate	infer	judge	formulate
state	compare	change	separate	support	invent
match	differentiate	choose	explain	compare	hypothesize
recognize	discuss	demonstrate	select	decide	substitute
select	distinguish	discover	categorize	discriminate	write
examine	extend	experiment	connect	recommend	compile
locate	predict	relate	differentiate	summarize	construct
memorize	associate	show	discriminate	assess	develop
quote	contrast	sketch	divide	choose	generalize
recall	convert	complete	order	convince	integrate
reproduce	demonstrate	construct	point out	defend	modify
tabulate	estimate	dramatize	prioritize	estimate	organize
tell	express	interpret	subdivide	find errors	prepare
copy	identify	manipulate	survey	grade	produce
discover	indicate	paint	advertise	measure	rearrange
duplicate	infer	prepare	appraise	predict	rewrite
enumerate	relate	produce	break down	rank	role-play
listen	restate	report	calculate	score	adapt
observe	select	teach	conclude	select	anticipate
omit	translate	act	correlate	test	arrange
read	ask	administer	criticize	argue	assemble
recite	cite	articulate	deduce	conclude	choose
record	discover	chart	devise	consider	collaborate
repeat	generalize	collect	diagram	critique	collect
retell	give examples	compute	dissect	debate	devise
visualize	group	determine	estimate	distinguish	express
	illustrate	develop	evaluate	editorialize	facilitate
	judge	employ	experiment	justify	imagine
	observe	establish	focus	persuade	infer
	order	examine	illustrate	rate	intervene
	report	explain	organize	weigh	justify
	represent	interview	outline		make
	research	judge	plan		manage
	review	list	question		negotiate
	rewrite	operate	test		originate
	show	practice			propose
	trace	predict			reorganize
	transform	record			report
		schedule			revise
		simulate			schematize
		transfer			simulate
		write			solve
					speculate
					structure
					support
					test
					validate

Appendix 2. Grading Rubrics for Excel Assignment (Problem Solving & Decision Making)

Seminar Session:	Group Number:				
1. Executive Summary		Strongly agree			
1.1. State clearly and concretely what group is analysing?	5	4	3	1	
1.2. State specific results.	5	4	3	1	
1.3. Why your results are important	5	4	3	1	
1.4. Clearly written; few grammatical errors	5	4	3	1	
5 = An excellent response clearly and concisely answers the issues in the question.					
4 = A good response addresses the issues in the question, however the analysis may not be clearly written.					
3 = An acceptable response may not address all of the issues in the question, however it does address most of the questions. In addition, it is not clearly written, and contains grammatical mistakes. The answer may contain analysis not related to the question.					
1 = An unacceptable paper addresses few of the issues in the question In addition, it is poorly written, and contains many grammatical mistakes. The answer may contain analysis not related to the question.					
0 = No attempt to answer question.					

Tasks

1. Graph the stock index LEVELS				
Data Analysis		2		1
Interpretative Question		2		1
2. Calculate mean returns and standard deviation of returns				
Data Analysis		2		1
Interpretative Question		2		1
3. Calculate mean returns and standard deviation of returns				
Data Analysis		2		1
Interpretative Question		2		1
4. Calculate covariance and correlation matrices				
Data Analysis		2		1
Interpretative Question		2		1
5. Calculate mean variance optimal weights				
Data Analysis		2		1
Interpretative Question		2		1
6. Calculate the Capital Allocation Line				
Data Analysis		2		1
Interpretative Question		2		1
7. Calculate CAPM alpha and beta				
Data Analysis		2		1
Interpretative Question		2		1

2= if all of the questions were answered correctly

1= if answers are partially correct

0 = if no answer was provided

Appendix 3. Peer Evaluation Form

BF2201/2219 Investments

CONFIDENTIAL PEER EVALUATION FORM FOR TEAM PROJECT

Member's name: _____

Seminar group and team number: _____

Please use the attached Peer Evaluation Rubric to evaluate yourself and your team members on each of the 5 stated attributes (on a scale of 1 to 7). State your ratings for yourself and each of your team members in the table below. For your self-assessment, insert "(Self)" after your name in the table below.

Index #	Name of team members	1 - RR	2 - CM	3 - CR	4 - CT	5 - RS	Average Rating
1							
2							
3							
4							
5							
6							

If any of your ratings above is < 4, please provide a brief explanation to justify the ratings.

Index #	Brief explanation to justify a rating of < 4

You may attach supporting documents (like emails and screen shots), if any, to support your explanations above.

Teamwork & Interpersonal Skills (Peer Evaluation) Rubric**Learning Objective: The ability to work effectively with others in a group setting.**

Traits	Performance	
<u>1. Roles and Responsibility (RR)</u> Behaves professionally by upholding responsibility and assuming accountability for self and others in progressing towards the team's goal.	Scant Unclear about his/her own role; refuses to take a role in the group; insists to work individually and has limited coordination or communication with others.	Substantially Developed Always fulfills responsibilities; performs his/her role within the group with enthusiasm and demonstrates willingness to work collaboratively.
Evaluation: Scant 1 2 3 4 5 6 7 Substantially Developed		
<u>2. Communication (CM)</u> Identifies appropriate mechanisms to coordinate and correspond with team members.	Scant Modes of communication are not appropriate, causing confusion and miscommunication among team members.	Substantially Developed Modes of communication are appropriate, and maintaining timely communication and correspondence with team members.
Evaluation: Scant 1 2 3 4 5 6 7 Substantially Developed		
<u>3. Conflict Resolution (CR)</u> Resolves conflicts using a variety of approaches.	Scant Does not recognize conflicts or is unwilling to resolve conflicts.	Substantially Developed Consistently resolves conflicts through facilitating open discussion and compromise.
Evaluation: Scant 1 2 3 4 5 6 7 Substantially Developed		
<u>4. Contributions (CT)</u> Contributes positive input for the team; effectively utilizes one's knowledge and expertise.	Scant Largely disinterested in working in a group and refuses to participate; observes passively or is unwilling to share information with other team members.	Substantially Developed <u>Actively attends and participates in all activities and provides meaningful contribution in articulating ideas and opinions.</u>
Evaluation: Scant 1 2 3 4 5 6 7 Substantially Developed		
<u>5. Relationship (RS)</u> Maintains cooperative interaction with other team members regardless of individual /cultural differences and respects diverse perspectives.	Scant Rarely listens to others and does not acknowledge the opinions that differ from his/her own.	Substantially Developed Engages in respectful relationships with all other members in the team. Embraces and accepts diverse points of view without prejudice.
Evaluation: Scant 1 2 3 4 5 6 7 Substantially Developed		

References:

Teamwork Value Rubric - Association of American Colleges and Universities. Retrieved from <http://www.aacu.org/value/rubrics/pdf/teamwork.pdf>

ANNEX C: CURRENT COURSE OUTLINE

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Session	Day	Time starts	Time ends	Venue	Instructor
1	T	9:30	12:20	S4-SR22	Asst Prof Dawoon Kim*
2	T	14:30	17:20	S4-SR22	Asst Prof Dawoon Kim*
3	TH	9:30	12:20	S4-SR22	Asst Prof Dawoon Kim*

* Course Coordinator

5. If you have a medical condition and need special arrangements for final exam, you must inform the instructor **latest by week 5**. Medical proof must be provided.

6. Cell-phones must be turned off or on vibration mode when in class. Students are expected to be respectful to other students and to the instructor. Errant students will be asked to leave the seminar room. You are allowed to use laptops.

7. Students must abide by the university honour codes. **Copying** solutions from illegal sources (including from senior students) and cheating during quizzes/exam are **serious violations** of the university honour codes. If caught, the student will be reported to the undergraduate office and given an "F" grade for BF2201 immediately.

8. The instructors **DO NOT DISCUSS** past year exam questions. Do **NOT** come to us with this request as the outcome is negative with 100% certainty. The past year exam questions will be incorporated into the lecture and discussed accordingly. There will be no tutorials as all questions will be discussed real-time in class.

9. The **date of the quiz** is fixed by the university and **CANNOT** be changed.

10. The quiz is "Open Book" and 2-hour in duration. Bring along a financial calculator. Importantly, bring yourself.

11. Consultation with instructors is strictly by appointments only.

12. The syllabus is dynamic and subjected to changes. Depending on the progress of the class, the instructor reserves the rights to add/remove topics from the syllabus.

I) Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion, and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

J) Course Instructors				
Instructor	Office Location	Phone	Email	Consultation Hours
Asst Prof Dawoon Kim	S3-B1B-72	6790 6133	Dawoon.kim@ntu.edu.sg	By appointments
K) Planned Weekly Schedule				
<i>** Examinable but covered in Financial Management. Students are expected to know these materials well on their own.</i>				
Week (beginning)	Topic	ILO	Readings/ Activities	
1 (10, 12 Jan)	Overview - Fundamentals of Financial Economics	1	Lecture Notes	
2 (17, 19 Jan)	Overview of Securities Markets* Risk and Return: Past and Prologue**	1	Lecture Notes Ch 2*, 3*, 5** of Textbook (BKM)	
3 (31 Jan, 2 Feb)	Efficient Diversification* Capital Asset Pricing**	2	Lecture Notes Ch 6*, 7** of Textbook (BKM)	
4 (7, 9 Feb)	Capital Asset Pricing* Arbitrage Pricing Theory* Multi-factor Models*	3	Lecture Notes Ch 7* of Textbook (BKM) HW-1 DUE: 12 Feb	
5 (14, 16 Feb)	The Efficient Market Hypothesis* Behavioural Finance**	4	Lecture Notes Ch 8*, 9** of Textbook (BKM)	
6 (21, 23 Feb)	Asset Classes and Financial Instruments*. Securities Markets** Market Microstructure	4	Lecture Notes Ch 1, 2*, 3** of Textbook (BKM)	
<i>BREAK (27 Feb – 3 Mar)</i>				
7	Mutual Funds and Other	4	Lecture Notes	

(7, 9 Mar)	Investment Companies* Portfolio Performance Evaluation** Problem solving and Q&A		Ch 4*, 18**, 20* of Textbook (BKM) HW-2 DUE: 12 Mar
8 (14, 16 Mar)	Bond Prices and Yields	5	Lecture Notes Ch 10 of Textbook (BKM)
9 (21, 23 Mar)	Managing Bond Portfolios	6	Lecture Notes Ch 11 of Textbook (BKM)
10 (28, 30 Mar)	Other Fixed Income Securities* Securities Markets** Problem solving and Q&A	7	Lecture Notes Ch 10*, 2**, 3** of Textbook (BKM) HW-3 DUE: 2 Apr
11 (4, 6 Apr)	Derivatives 1 Options Markets and Valuation	7	Lecture Notes Ch 15, 16 of Textbook (BKM)
12 (11, 13 Apr)	Derivatives 2 Futures Markets and Valuation Problem solving and Q&A	8	Lecture Notes Ch 17 of Textbook (BKM) HW-4 DUE: 16 Apr

Annex B**List of NBS Learning Goals**

LEARNING GOAL	LEARNING OBJECTIVE	CHECK
TASK SKILLS		
Acquisition of Knowledge	The ability to understand clearly about investments and portfolio management.	<input checked="" type="checkbox"/>
Ethical Reasoning	The ability to recognize and understand ethical issues, and apply sound ethical reasoning.	<input type="checkbox"/>
Critical Thinking & Creative Thinking	The ability to define, examine, evaluate, analyze, and synthesize various arguments and knowledge to form independent judgment.	<input checked="" type="checkbox"/>
	The ability to provide insight in an innovative way characterized by high degree of adaptiveness.	<input type="checkbox"/>
Problem Solving & Decision Making	The ability to identify problem, generate a plan to solve problem, implement and evaluate the plan and make sound business decision.	<input checked="" type="checkbox"/>
Planning & Execution	The ability to set clear priorities and plans of action for the task and define task objectives to fulfill goals within a planned schedule for execution.	<input type="checkbox"/>
PEOPLE SKILLS		
Oral Communication & Written Communication	The ability to communicate well with others verbally so that it clearly expresses the intended message and is understandable and useful to the receiving party.	<input type="checkbox"/>
	The ability to communicate well with others in writing so that it clearly expresses the intended message and is understandable and useful to the receiving party.	<input type="checkbox"/>
Negotiation	The ability to systematically plan and prepare for negotiation and apply negotiation skills in personal and professional practice.	<input type="checkbox"/>
Cultural Intelligence	The ability to function effectively in situations characterized by cultural diversity.	<input type="checkbox"/>
Teamwork & Interpersonal Skills	The ability to work effectively with others in a group setting.	<input checked="" type="checkbox"/>
Motivation & Development of Self & Others	The ability to develop a better understanding of one's strengths and weaknesses, and learn to view others and mistakes positively as sources of personal and professional development.	<input type="checkbox"/>

Please write to NBS Accreditation office (nbsaccro@ntu.edu.sg) for sample rubrics.

Appendix 1: Taxonomy for Learning Outcomes/Objectives

Action Words for Bloom's Taxonomy					
Knowledge	Understand	Apply	Analyze	Evaluate	Create
define	explain	solve	analyze	reframe	design
identify	describe	apply	compare	criticize	compose
describe	interpret	illustrate	classify	evaluate	create
label	paraphrase	modify	contrast	order	plan
list	summarize	use	distinguish	appraise	combine
name	classify	calculate	infer	judge	formulate
state	compare	change	separate	support	invent
match	differentiate	choose	explain	compare	hypothesize
recognize	discuss	demonstrate	select	decide	substitute
select	distinguish	discover	categorize	discriminate	write
examine	extend	experiment	connect	recommend	compile
locate	predict	relate	differentiate	summarize	construct
memorize	associate	show	discriminate	assess	develop
quote	contrast	sketch	divide	choose	generalize
recall	convert	complete	order	convince	integrate
reproduce	demonstrate	construct	point out	defend	modify
tabulate	estimate	dramatize	prioritize	estimate	organize
tell	express	interpret	subdivide	find errors	prepare
copy	identify	manipulate	survey	grade	produce
discover	indicate	paint	advertise	measure	rearrange
duplicate	infer	prepare	appraise	predict	rewrite
enumerate	relate	produce	break down	rank	role-play
listen	restate	report	calculate	score	adapt
observe	select	teach	conclude	select	anticipate
omit	translate	act	correlate	test	arrange
read	ask	administer	criticize	argue	assemble
recite	cite	articulate	deduce	conclude	choose
record	discover	chart	devise	consider	collaborate
repeat	generalize	collect	diagram	critique	collect
retell	give examples	compute	dissect	debate	devise
visualize	group	determine	estimate	distinguish	express
	illustrate	develop	evaluate	editorialize	facilitate
	judge	employ	experiment	justify	imagine
	observe	establish	focus	persuade	infer
	order	examine	illustrate	rate	intervene
	report	explain	organize	weigh	justify
	represent	interview	outline		make
	research	judge	plan		manage
	review	list	question		negotiate
	rewrite	operate	test		originate
	show	practice			propose
	trace	predict			reorganize
	transform	record			report
		schedule			revise
		simulate			schematize
		transfer			simulate
		write			solve
					speculate
					structure
					support
					test
					validate

Appendix 2. Grading Rubrics for Excel Assignment (Problem Solving & Decision Making)

Seminar Session:	Group Number:				
1. Executive Summary		Strongly agree			
1.1. State clearly and concretely what group is analysing?	5	4	3	1	
1.2. State specific results.	5	4	3	1	
1.3. Why your results are important	5	4	3	1	
1.4. Clearly written; few grammatical errors	5	4	3	1	
5 = An excellent response clearly and concisely answers the issues in the question.					
4 = A good response addresses the issues in the question, however the analysis may not be clearly written.					
3 = An acceptable response may not address all of the issues in the question, however it does address most of the questions. In addition, it is not clearly written, and contains grammatical mistakes. The answer may contain analysis not related to the question.					
1 = An unacceptable paper addresses few of the issues in the question In addition, it is poorly written, and contains many grammatical mistakes. The answer may contain analysis not related to the question.					
0 = No attempt to answer question.					

Tasks**1. Graph the stock index LEVELS**

Data Analysis	2	1
Interpretative Question	2	1

2. Calculate mean returns and standard deviation of returns

Data Analysis	2	1
Interpretative Question	2	1

3. Calculate mean returns and standard deviation of returns

Data Analysis	2	1
Interpretative Question	2	1

4. Calculate covariance and correlation matrices

Data Analysis	2	1
Interpretative Question	2	1

5. Calculate mean variance optimal weights

Data Analysis	2	1
Interpretative Question	2	1

6. Calculate the Capital Allocation Line

Data Analysis	2	1
Interpretative Question	2	1

7. Calculate CAPM alpha and beta

Data Analysis	2	1
Interpretative Question	2	1

2= if all of the questions were answered correctly

1= if answers are partially correct

0 = if no answer was provided

Appendix 3. Peer Evaluation Form

BF2201/2219 Investments

CONFIDENTIAL PEER EVALUATION FORM FOR TEAM PROJECT

Member's name: _____

Seminar group and team number: _____

Please use the attached Peer Evaluation Rubric to evaluate yourself and your team members on each of the 5 stated attributes (on a scale of 1 to 7). State your ratings for yourself and each of your team members in the table below. For your self-assessment, insert "(Self)" after your name in the table below.

Index #	Name of team members	1 - RR	2 - CM	3 - CR	4 - CT	5 - RS	Average Rating
1							
2							
3							
4							
5							
6							

If any of your ratings above is < 4, please provide a brief explanation to justify the ratings.

Index #	Brief explanation to justify a rating of < 4

You may attach supporting documents (like emails and screen shots), if any, to support your explanations above.

Teamwork & Interpersonal Skills (Peer Evaluation) Rubric**Learning Objective: The ability to work effectively with others in a group setting.**

Traits	Performance	
<u>1. Roles and Responsibility (RR)</u> Behaves professionally by upholding responsibility and assuming accountability for self and others in progressing towards the team's goal.	Scant Unclear about his/her own role; refuses to take a role in the group; insists to work individually and has limited coordination or communication with others.	Substantially Developed Always fulfills responsibilities; performs his/her role within the group with enthusiasm and demonstrates willingness to work collaboratively.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>2. Communication (CM)</u> Identifies appropriate mechanisms to coordinate and correspond with team members.	Scant Modes of communication are not appropriate, causing confusion and miscommunication among team members.	Substantially Developed Modes of communication are appropriate, and maintaining timely communication and correspondence with team members.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>3. Conflict Resolution (CR)</u> Resolves conflicts using a variety of approaches.	Scant Does not recognize conflicts or is unwilling to resolve conflicts.	Substantially Developed Consistently resolves conflicts through facilitating open discussion and compromise.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>4. Contributions (CT)</u> Contributes positive input for the team; effectively utilizes one's knowledge and expertise.	Scant Largely disinterested in working in a group and refuses to participate; observes passively or is unwilling to share information with other team members.	Substantially Developed <u>Actively attends and participates in all activities and provides meaningful contribution in articulating ideas and opinions.</u>
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>5. Relationship (RS)</u> Maintains cooperative interaction with other team members regardless of individual /cultural differences and respects diverse perspectives.	Scant Rarely listens to others and does not acknowledge the opinions that differ from his/her own.	Substantially Developed Engages in respectful relationships with all other members in the team. Embraces and accepts diverse points of view without prejudice.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		

References:

Teamwork Value Rubric - Association of American Colleges and Universities. Retrieved from <http://www.aacu.org/value/rubrics/pdf/teamwork.pdf>