



Lincoln University

BA 463 – Investment Science COURSE SYLLABUS 2018

- Instructor:** Prof. Sergey Aityan, Ph.D., Sc.D.
Lecture Schedule: Monday, 3:30 PM – 6:15 PM
Credit: 4 units: 3 units / 45 lecture hours + 1 unit individual research project
Level: Mastery 2 / Research (M2R)
Office Hours: Monday, 11:15 AM – 12:15 PM
Students are advised to schedule appointments by signing their names on the appointment list which is located on the information board next to the professor's office that will ensure exact appointment time without waiting.
Additional office hours by appointment
e-mail: aityan@lincolnuca.edu
☎: (510) 628-8016
- Textbooks:** David G. Luenberger (2013). Investment Science, 2nd Edition, Oxford University Press, 640 p. ISBN-10: 0199740089 ISBN-13: 978-0199740086
*** previous editions of this book are okay too ***

Last Revision: February 3, 2018

CATALOG DESCRIPTION

The course introduces students to the basic tools used by investment professionals. It deals with different kinds of securities, their pricing, and methods to optimize a choice of an investment portfolio. A one-unit written research project and its oral presentation are required for the course. (4 units)

Prerequisites: BA 303, BA 360 or BA 241

EDUCATIONAL OBJECTIVES

To introduce students to major principles of investment and asset allocation particularly in securities markets. Students will learn how to identify and select the most optimal investment, do industry and company valuation, identify expected return, and manage risk.

COURSE LEARNING OUTCOMES¹

	Course LO	Program LO	Institutional LO	Assessment
1	Understand and be able to apply the major methods of interest rate analysis.	PLO 3	ILO 1b, ILO 6b	Course project, quizzes, midterm/final exam
2	Be able to select and apply appropriate pricing models in line with organization's strategic priorities.			
	Be able to design and implement studies on topics within investment science discipline.	PLO 4	ILO 1b, ILO 5b	Individual research project
3	Be able to effectively and professionally communicate the nature and properties of risks to relevant stakeholders as well as to propose the strategies of risk minimization.	PLO 5	ILO 2b	Course project, quizzes, midterm/final exam

PROCEDURES AND METHODOLOGY

Lecture method is used in combination with a supervised exercises and business case study. The emphasis will be on learning by doing. Every student must participate in an intensive classroom activity, must complete home tasks and course projects, and take quizzes and exams.

Assignments and projects require students to actively use resources of the library. Detailed guide to business *resources of the library* as well as the description of Lincoln University approach to *information literacy* are available at the [Center for Teaching and Learning](http://ctl.lincolnuca.edu) website (ctl.lincolnuca.edu).

COURSE PROJECT

Every student must complete and submit a course project.

INDIVIDUAL RESEARCH PROJECT (1 unit)

Each student registered for a 400-level course must complete a one unit research project in addition to the coursework described in this syllabus. The specific topic will be assigned by the instructor.

The project requires 45 hours of self-study with regular consultations in accordance with the schedule determined by the instructor. The project work results in a written report (not less than 15 pages; APA style) and an oral presentation during the class session.

Evaluation of the student's work will be done using the following rubric:

¹ Detailed description of learning outcomes and information about the assessment procedure are available at the [Center for Teaching and Learning](http://ctl.lincolnuca.edu) website (ctl.lincolnuca.edu).

WRITTEN REPORT				
	<i>Exceeds Standards</i>	<i>Meets Standards</i>	<i>Does Not Meet Standards</i>	<i>Not Present</i>
<i>Research Problem Statement</i>	The statement of a research problem is crystal clear, novel and thought provoking	Clearly and concisely identifies a research problem	The statement of a research problem is incomplete, lacking precision.	The statement of a research problem is absent.
<i>Organization</i>	The report is logically organized; ideas are exceptionally well-developed and support a thoughtful and engaging conclusion.	The development of ideas is present; the conclusion is effective and directly addresses the original thesis.	Organization is confusing, disjointed, and inconsistent; ideas, if present, are not developed; the conclusion is vague and/or does not address the original thesis.	The report lacks organization
<i>Sources and formatting</i>	A variety of high-quality sources is used; all factual claims are supported with citations. The report follows the APA style guidelines.	A few high-quality sources are used; majority of factual claims are supported with citations. The report mostly follows the APA style guidelines.	Sources used are of a questionable quality; factual claims are not supported. Use of APA style is inconsistent.	Sources are not identified or of a poor quality; factual claims are unsubstantiated. The report is poorly formatted

PRESENTATION			
	<i>Exceeds Standards</i>	<i>Meets Standards</i>	<i>Does Not Meet Standards</i>
<i>Style and Organization</i>	Presentation is clear, confident and fully engaging; the use of visual aids enhances its effectiveness; the presentation is well-timed and structured.	Presentation is clear; the use of visual aids is not detrimental to audience engagement; all necessary components are given appropriate time.	Presentation lacks clarity, no attempt is made to engage the audience; visual aids are haphazard and distracting; lack of structure results in an inefficient use of time.
<i>Questions and Answers</i>	Student demonstrates extensive knowledge of the topic by providing	Student demonstrates knowledge of the topic by responding	Student demonstrates lack of knowledge of the topic by responding

	confident, precise and appropriate responses to all audience question.	adequately to questions of the audience.	inaccurately and inappropriately to audience questions.
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REQUIREMENTS

All students are required to attend classes. Continuous assessment is emphasized. Written or oral quizzes will be given every week. Reading, writing, home tasks, and “business case study” assignments will be made throughout the course. Students must complete all assignments and take all quizzes, mid-term exam and final exam on the dates due. Plagiarism will result in the grade “F” and a report to the administration.

ATTENDANCE

Students are expected to attend each class session. If you cannot attend a class due to a valid reason, please notify the instructor prior to the class.

EXAMS

Both, midterm and final exams are structured as written essay to answer the given questions. The essay must be written structurally with clear logical presentation of the answers. Graphs, charts, tables, and other supporting illustrations are required if needed. Examples to illustrate the answers are required.

Exams will cover all assigned chapters, any additional readings or supplementary materials covered in class. The exams are neither “open book” nor “open notes.”

GRADING AND SCORING POLICY

All activities will be graded according to the points as shown below.

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
Points	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	60-66	0-59

In exams, every answer is graded by points from 0 to 100 and the total points for an exam are calculated as the average of the points received for all answers in the exam.

The final grade for the course will be given as the total weighted score for all activities according to the percentage shown in the table below.

Activity	Time	Percent
Quizzes, home tasks, and classroom activities	Every week	10%
Course project		15%
Individual research project		25%
Mid-term exam	In the middle of the course	25%
Final exam	Last week of the course	25%

If both grades for the midterm and final exams are “F” the term grade for the course is “F” regardless of the grades for other activities.

COURSE SCHEDULE

Lectures #	Topic	Chapters	
		Lectures	Textbook
1	(a) About the Course (b) The Introduction	Ch. 1	Ch. 1
2	The Basic Theory of Interest	Ch. 2	Ch. 2
3	Fixed-Income Securities	Ch. 3	Ch. 3
	President's Day – No classes		
4	The Term Structure of Interest Rates	Ch. 4	Ch. 4
5	Applied Interest Rate Analysis	Ch. 5	Ch. 5
6	Mean-Variance Portfolio Theory (Part I)	Ch. 6	Ch. 6
7	Mean-Variance Portfolio Theory (Part II)	Ch. 6	Ch. 6
8	The Capital Asset Pricing Model	Ch. 7	Ch. 7
9	Other Pricing Models	Ch. 8	Ch. 8
10	Midterm Exam	Ch. 1-8	
11	Data and Statistics	Ch. 9	Ch. 9
12	Risk Measures	Ch. 10	Ch. 10
13	General Principles	Ch. 11	Ch. 11
14	Comprehensive Final Exam	Ch. 1-11	
15	Course Project Presentations		

OTHER COMMENTS

- Please participate. What you put into the class will determine what you get out of it – and what others get out of it.
- Please come on time. Late arrivals disturb everyone else.
- If you miss a class, you are responsible for getting notes/slide printouts on the material covered from a classmate or the instructor.
- To avoid distracting noise in class, cellular phones must be turned off or the ringing mode silenced.
- Questions and comments during the class are welcome. Do not hesitate to ask questions – do not leave anything unclear for you.

MODIFICATION OF THE SYLLABUS

The instructor reserves the right to modify this syllabus at any time during the semester. Announcements of any changes will be made in a classroom.