



COURSE DESCRIPTION

1. Information about the programme

1.1 Institution of higher education	Alexandru Ioan Cuza University of Iasi
1.2 Faculty	Faculty of Economics and Business Administration
1.3 Department	Department of Finance, Money and Public Administration
1.4 Field of study	Finance
1.5 Level	Master
1.6 Study programme/ Qualification	Finance and Risk Management

2. Information about the course

2.1 Course name	Fundamentals of Risk Measurement						
2.2 Course coordinator	Prof. Sorin Gabriel ANTON						
2.3 Seminar coordinator	Prof. Sorin Gabriel ANTON						
2.4 Year of study	1	2.5 Semester	1	2.6 Type of assessment	E	2.7 Course status	C

* C – Compulsory / E – Elective

3. Total estimated time (hours allotted to teaching activities per semester)

3.1 Number of hours per week	3	of which: 3.2 lecture	2	3.3 seminar/lab	1	
3.4 Number of hours in the curriculum	42	of which: 3.5 lecture	28	3.6 seminar/lab	14	
Time distribution						hrs
Study of the textbook, coursebook, bibliography and lecture notes						40
Additional research in the library, online and on the field						20
Preparation of seminars/labs, homework, projects, portfolios and essays						15
Tutorials						2
Assessment						4
Other activities.....						2
3.7 Total number of self-study hours						83
3.8 Total number of hours per semester						125
3.9 Number of credits						5

4. Prerequisites (if applicable)

4.1 Curriculum-based	-
4.2 Competence-based	-

5. Conditions (if applicable)

5.1 For lectures	<ul style="list-style-type: none"> ▪ Attendance at lectures is strongly encouraged. ▪ Operation of cell phones and other handheld electronic devices for sending and reading text messages and e-mails, recording or other disruptive activities for fellow students and instructor is not allowed. Devices should be turned off or set to the vibrate mode before the start of the lecture.
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5.2 For seminars / labs	<ul style="list-style-type: none"> ▪ Attendance is compulsory at minimum 80% of the seminars. In case of absence, the instructor should be informed in advance. ▪ Operation of cell phones and other handheld electronic devices for sending and reading text messages and e-mails, recording or other disruptive activities for fellow students and instructor is not allowed. Devices should be turned off or set to the vibrate mode before the start of the seminar.
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6. Specific competencies

Professional competencies	<p>C1. Analysis of the theoretical and practical aspects of financial markets, models, instruments that are used in the management of risks.</p> <p>C2. Adequate use of mathematical and statistical concepts, methods and techniques in assessing risks and performing independent research in finance.</p> <p>C3. Evaluation of the main risk factors for organizations and financial systems.</p> <p>C4. Implementing effective financial management and reporting within the business environment to ensure value creation.</p> <p>C5. Ensuring effective and appropriate governance and management of risk within an organization, in the context of an overall ethical framework.</p>
Transversal competencies	<p>CT1. Application of the professional ethical norms and values in decision-making and undertaking of complex professional tasks, independently or within a team.</p> <p>CT2. Human resources planning within a group or organization, in the context of awareness of own responsibility for professional outcomes.</p> <p>CT3. Assuming the need for continuous development to create prerequisites for career progression and adapt own professional and managerial competencies to the economic dynamics.</p>

7. Course objectives (provided by the specific competencies grid)

7.1. Main objective	On completion of the course, the students will have detailed expert knowledge concerning the risk measurement of various types of risk. In particular, these are market risk, credit risk, operational risk and insurance risk (life and non-life risk).
7.2. Specific objectives	<p>On completion of the course, the students will be able to:</p> <ul style="list-style-type: none"> ▪ Analyze and relate the operations of financial institutions to their key risks ▪ Describe the risk management framework ▪ Apply the key tools to measure credit risk, market risk, operational risk, and liquidity risk ▪ Use the key tools to assess insurance risks (life and non-life risk)

8. Content

8.1	Lectures	Teaching methods	Observations (hours & readings)
1.	Risk Management Framework	Interactive lecture, Brainstorming, Ungraded quiz	4hrs: (H), (Jb), (SC)





2.	Measurement of Market Risk	Interactive lecture, Brainstorming, Simulation, Ungraded quiz	6hrs: (A), (H), (Ja), (Jb)
3.	Measurement of Credit Risk	Interactive lecture, Brainstorming, Simulation, Ungraded quiz	6hrs: (BOW), (H), (Jb)
4.	Measurement of Operational Risk	Interactive lecture, Brainstorming, Ungraded quiz	3hrs: (H), (Jb)
5.	Measurement of Liquidity Risk	Interactive lecture, Brainstorming, Ungraded quiz	2hrs: (Jb)
6.	Measurement of Non-life Risk	Interactive lecture, Brainstorming, Ungraded quiz	3hrs: (KGDD)
7.	Measurement of Life Risk	Interactive lecture, Brainstorming, Ungraded quiz	4hrs: (KGDD)

Bibliography**Main readings:**

- Alexander, C., 2008, Value-at-Risk Models, John Wiley & Sons (A)
- Bluhm, C., Overbeck, L., Wagner, C., 2002, An Introduction to Credit Risk Modeling, Taylor & Francis ltd. (BOW)
- CFA Institute Investment Series' Books published by Wiley – available at <https://www.wiley.com/learn/cfashowcase/#portfolio> (CFA)
- Hull, J., 2023, Risk Management and Financial Institutions, 6th edition, John Wiley & Sons, New Jersey (H).
- Jorion, P., 2006, Value at Risk, 3rd ed., McGraw-Hill (Ja)
- Jorion, P., 2011, Financial Risk Manager Handbook, 6th ed., Wiley & Sons (Jb)
- Kaas, R., Goovaerts, M., Dhaene, J., Denuit, M., 2001, Modern Actuarial Risk Theory, Kluwer Academic Publishers (KGDD)
- Saunders, A., Cornett, M.M., 2008, Financial Institution Management. A Risk Management Approach, 6th ed., McGrawHill, New York (SC)

Additional readings:

Other readings such as cases, simulations, journal papers, press articles will be provided periodically throughout the course via FEAA eLearning platform, e-mail or handed-in in class.

8.2	Seminars / Labs	Teaching methods	Observations (hours & readings)
1.	Risk Management Framework	Small group discussion, Random calling	2hrs: (H), (Jb), (SC)
2.	Measurement of Market Risk	Small group discussion, Simulation, Random calling	3hrs: (A), (H), (Ja), (Jb)
3.	Measurement of Credit Risk	Small group discussion, Simulation, Random calling	3hrs: (BOW), (H), (Jb)
4.	Measurement of Operational Risk	Small group discussion, Simulation, Random calling	2hrs: (H), (Jb)
5.	Measurement of Liquidity Risk	Small group discussion, Simulation, Random calling	2hrs: (Jb)
6.	Measurement of Insurance Risks	Small group discussion, Simulation, Random calling	2hrs: (KGDD)



**Bibliography****Main readings:**

- Alexander, C., 2008, Value-at-Risk Models, John Wiley & Sons (A)
- Bluhm, C., Overbeck, L., Wagner, C., 2002, An Introduction to Credit Risk Modeling, Taylor & Francis Ltd. (BOW)
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- Jorion, P., 2011, Financial Risk Manager Handbook, 6th ed., Wiley & Sons (Jb)
- Kaas, R., Goovaerts, M., Dhaene, J., Denuit, M., 2001, Modern Actuarial Risk Theory, Kluwer Academic Publishers (KGDD)
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9. Corroboration of the course content with the expectations of community representatives, professional associations and representative employers from the programme's related field

This course provides students with the core knowledge, skills, and abilities that are generally accepted and applied by finance and investments professionals throughout the world. Topics are selected in accordance to the requirements of Chartered Financial Analyst (CFA) and Professional Risk Manager (PRM) world-leading certifications for finance and risk management, to offer the adequate preparation for CFA and PRM exams. The course content is correlated to that of similar courses taught at renowned universities and is continuously updated based on the feedback of students and alumni. Moreover, this is a student-centered course that follows the best practices of learning and teaching in undergraduate education through the adoption of a variety of active-learning instructional methods.

10. Assessment

Type of activity	10.1 Assessment criteria	10.2 Assessment methods	10.3 Weight in final grade (%)
10.4 Lectures	The quality of the written paper. The minimum grade must be 5,00 to pass the course.	Written exam with open questions	50%
10.5 Seminars/ Labs	The quality of individual project and the test.	Seminar assessment (individual project, test, seminar activity)	50%
10.6 Minimum performance standard			
The final grade is computed as $0.5 * \text{seminar assessment} + 0.5 * \text{final exam grade}$.			
The minimum final grade must be 5.00 in order to pass the course.			

Date
01.09.2023

Course Coordinator
Prof. Sorin Gabriel ANTON

Seminar Coordinator
Prof. Sorin Gabriel ANTON

Date of approval
26.09.2023

Head of Department
Professor Ovidiu Stoica





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