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Course Package “Applied skills in risk management”

Work Package	WP3: Development of Course Materials for the Reformed MA Programmes, Deliverable 3.1
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Document History

Version	Date	Author(s)	Description
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2.	11.2018	Gayane Harutyunyan (ASUE)	The draft version of the document has been prepared taking into consideration some comments done by professors of Chair of Finance, ASUE
3.	02.02.2019	Gayane Harutyunyan (ASUE) Michel Knoppel (AUAS)	The draft version of the document has been prepared taking into consideration some comments done by Michel Knoppel (professor of AUAS)
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1. General information about the course

Explanation: Please fill in the table below.

Title of the course (as specified in the reformed curriculum)	Applied skills in risk management
Name of the teacher	Gayane Harutyunyan
Novelty of the course (please select as appropriate)	<u>This course is an updated and revised version of a course which already existed in the curriculum</u>
Year of the course in the curriculum	1st
Semester of the course in the curriculum	2nd
Language of instruction of the course	Armenian
Number of ECTS credits	4
The background of the course	<p>The following course aims to give an imagination about the main risks that may take place in financial markets and their management. In this course financial market consists of bank sector, insurance and securities markets. It is well known that such sectors of market can be partly controlled by the help of right planning and chosen strategy. Because of management is a tool for right planning, companies working in this field should always apply appropriate risk management techniques. The last one can take place only if the forecasting methods are used. Forecasting methods are based on mathematical methods knowledge and also some tools. In this case such risks of financial markets like credit, market, operational and percentage risks' management are closely connected with the prediction abilities of sectors, especially the people who are working there. That's why this course should develop knowledge for students to work and manage the risks in different parts of financial markets.</p>

2. Learning outcomes of the course

Explanation: Please specify the learning outcomes of the course.

By examining the subject, the student will be able to:

1. Define, memorize and classify the main risks in financial institutions,
2. Interpret company management and risk management steps. Implement methods and tools for appropriate risk management,
3. Test risk management methods and tools by the example of financial institution,

4. Value and predict financial risks as a consequence of appropriate risk management.

3. Syllabus of the course

Explanation: Please provide a detailed syllabus of the course (broken down in weeks) – maximum 2 pages

N	Theme	Hours per Week
1.	Subject and content course	3
2.	Tasks and Process of risks management	3
3.	Basic mathematical methods of risk assessment	3
4.	Company management and risk management	4
5.	Main risks	3

		<ul style="list-style-type: none">4. Financial risks and their classification.5. Derivative financial instruments for managing financial risks.6. Risks of danger and their classification. Risk management of danger.	
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4. Teaching methodology of the course

Explanation: Please explain the teaching methodology and pedagogical approaches of the course – maximum ½ page

- Lectures
- Seminars
- Self-study

The following pedagogical methods are going to be used:

1. **During the lections** the theory and practice is going to be used. Having this information, students should be able to find a solution to a certain situation. For example: a case study must be done using the lecture or extra learning materials. Case studies are thorough descriptions of real events from real situations that students use to explore concepts in an authentic context.
2. **During the lections students are:**
 - free to ask questions,
 - should be able to find a solution to a problem,
 - will be challenged in different situations .
3. The study material is explained to students taking into consideration the **level of their knowledge**. The lecture and seminar processes will be student knowledge level oriented. For example: students will be classified in groups and the group that understood the material better will explain it to the one who didn't understand it in an appropriate level.
4. Besides in classroom studying process students will be able to have **a practise** in the organizations related to their specialization. For example, bank risk management will be more explained and showed in a certain bank risk management division.

5. Labour market relevance of the course

Explanation: Please explain the labour market relevance of the course (linked to findings of WP1) – maximum ½ page

Nearly in every country the financial market of plays a key role in its development. But the financial market must be developed first. For the development of the financial market, it is necessary to know all its special features. The latter are associated with the identification of risks and their management. The financial market in all most all countries consists of the following segments: banking system, insurance system, stock market. All these systems are

subject to global risks, such as credit, interest, operational. In order to manage these risks, we need to possess key management information. If the above mentioned risks are not managed correctly, then the entire financial system will be subject to crises.

After this course students can work in following sectors and organizations:

1. Central Banks,
2. Risk management department in banks,
3. Risk management department in insurance companies,
4. Risk management department in all most all financial organizations.

6. Assessment and grading

Explanation: Please explain the form of assessment of the course – maximum ½ page

Class participation – 25%

- Students' presence in the class (Absences reduces the total participation grade)
- Grading of students, which includes:
 - o Individual work-10%,
 - o Seminars including case studies, group works, etc.-10%,
 - o Asking and answering questions-5%.

Midterm exam – 25 %

Final exam – 50%

7. References

Explanation: Please provide the main references and recommended reading for the course – maximum 1 page

1. Nigel Da Costa Lewis,(2012), Market Risk Modelling, Second Edition: Applied Statistical Methods for Practitioners,
2. John Hampton, (2014), Fundamentals of Enterprise Risk Management: How Top Companies Assess Risk, Manage Exposure, and Seize Opportunity, 2nd Edition,
3. Michel Crouhy, Dan Galai, Robert Mark, (2014), The Essentials of Risk Management, 2nd Edition,
4. Rupak Chatterjee, (2014) Practical Methods of Financial Engineering and Risk Management: Tools for Modern Financial Professionals 1st ed. Edition

8. Course assignments

Explanation: Please provide two assignments for the course (e.g. group work, project, essay, case study, homework).

8.1 Assignment 1

Group work

An example:

Make a group of 6 students. Divide the group in 3 parts-2 students in each group. Analyse the whole financial market by sectors, e.g. insurance, banking and securities markets. Choose one company in each sector. Collect data for an appropriate period for analyses (5-10 years). Do the analyses either by years, or by quarters. Each 2 students have to calculate the credit risk, make VaR analyses using different mathematical methods. Then they should compare the data for the whole financial market and give some suggestions for the credit risk reduction.

8.2 Assignment 2

Homework

Calculate:

- The credit risk,
- Percentage risk,
- Market risk,
- Operative risk

By using

1. Basic concepts of probability theory and mathematical statistics in the field of risks,
2. Financial mathematics, including the cost of money in time, profitability and volatility, pricing methods, interest rate volitions,
3. The main types of probability distributions, regression analysis elements and the Monte Carlo method.

Annex: Presentation slides

Explanation: Please provide presentation slides for your course (this can be done in a separate document, e.g. Power Point (Minimum: 25 slides))