



Co-funded by the  
Erasmus+ Programme  
of the European Union



# Course Package

## “Computer softwares of financial planning”

<b>Work Package</b>	WP3: Development of Course Materials for the Reformed MA Programmes, Deliverable 3.1
<b>Author(s)</b>	Mare Khachatryan
<b>E-mail Address</b>	khachatryanmare@mail.ru
<b>Institution</b>	ASUE



**Erasmus+ Capacity Building in Higher Education Project:**

**“Reforming Master Programmes in Finance in Armenia and Moldova” (REFINE)**

[www.reforming-finance.eu](http://www.reforming-finance.eu) | Project No. 585784-EPP-1-2017-1-AT-EPPKA2-CBHE-JP

## Content

1. General information about the course .....	4
2. Learning outcomes of the course.....	5
3. Syllabus of the course.....	6
4. Teaching methodology of the course .....	8
5. Labour market relevance of the course.....	9
6. Assessment .....	10
7. References .....	11
8. Course assignments .....	12
8.1 Assignment 1 .....	12
8.2 Assignment 2.....	12
Annex: Presentation slides .....	13

## Document History

Version	Date	Author(s)	Description
1.	15.12.2018	Mare Khachatryan	1 <sup>st</sup> Draft of Development of Course Materials
2.	21.01.2019	Srdjan REDZEPAGIC Eric NASICA Olivier BRUNO	Revised version of 1 <sup>st</sup> Draft of Development of Course Materials
3.	28.01.2019	Mare Khachatryan	2 <sup>nd</sup> Draft Review-Updating of Course Materials
4.	30.01.2019	Srdjan REDZEPAGIC Eric NASICA Olivier BRUNO	Revised version of 2 <sup>nd</sup> Draft of Development of Course Materials
5.	02.02.2019	Mare Khachatryan	Final version of Course Materials

### Disclaimer:

*This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.*

## 1. General information about the course

<b>Title of the course (as specified in the reformed curriculum)</b>	Computer Softwares of Financial Planning
<b>Name of the teacher</b>	Mare Khachatryan
<b>Novelty of the course (please select as appropriate)</b>	This course is a newly developed course (new in the curriculum)
<b>Year of the course in the curriculum</b>	1 <sup>st</sup>
<b>Semester of the course in the curriculum</b>	2 <sup>nd</sup>
<b>Language of instruction of the course</b>	Armenian/English
<b>Number of ECTS credits</b>	5

## **2. Learning outcomes of the course**

The main purpose of the course is to develop computer skills in financial analysis by integrating conceptual material with spreadsheet-based numerical solution and simulation techniques.

This course is meant to help students understand, and use tools prevalent in applied finance. At first, students will be taught to Excel program, which will include the introduction of main importance, usage and advantages of Excel program. Then students will be taught both the main tools and functions (especially analytical) of Excel, and the accurate methods of forecasting, regression equations, summary tables and time tables of Excel program.

By finishing this course students will be able to plan, assess and evaluate a company's financial future through the development of a comprehensive financial plan. Also:

- Analyze and understand an income statement (even if they have no experience with income statements), build a complete valuation model of any company, build historical financial statements, analyze the Annual Report by using tools of Excel program.
- Interpret financial statements - the Balance Sheet, Income Statement and Statement of Cash Flows, calculate the sustainable rate of growth at which a company can grow without external financing.
- Forecast a company's sales, planned level of production, various types of expenditures, which could be done by using Excel program, especially Sales analysis, Data tables, Power BI, Linear Equal analysis and Regression analysis.
- Create a budget plan, build an Integrated Financial Model, produce an Income Statement and Balance Sheet, which students can do using Pivot table, Optimization function, VaR model of Excel program.

### 3. Syllabus of the course

The main topics of the course are:

WEEK	TOPIC
1	<b>Analysis companies business plan</b>
2	<b>Assessment of companies financial situation</b>
3	Assessment of companies financial situation
4	<b>Financial statement analysis</b>
5	Financial statement analysis
6	<b>Analysis and planning companies expenditures</b>
7	Analysis and planning companies expenditures
8	<b>Forecast companies incomes</b>
9	Forecast companies incomes
10	<b>Assessment of an optimal sales volume by managing risks</b>
11	Assessment of an optimal sales volume by managing risks
12	<b>Investment and portfolio organization and analysis</b>
13	<b>Securities and options valuation</b>
14	Securities and options valuation

#### 1. Analysis companies business plan

- What is business plan, its usage, structure and importance
- Types of business plan
- Analysis the finance section of companies business plan.

#### 2. Assessment of companies financial situation

- External and internal factors which influence on companies activity
- Controlling and planning a company's activities
- Analysis of a company's financial position

#### 3. Financial statement analysis

- Financial statement, its importance and structure
- Common methods of financial statement analysis (fundamental analysis, DuPont analysis, horizontal and vertical analysis and the use of financial ratios)
- Usage of Excel tools for making the mentioned analysis

#### **4. Analysis and planning companies expenditures /capital expenditures/**

- The role of capital expenditures for companies improve
- The importance of ROI and risk evaluation measures for companies future activity
- Calculation of asset turnover by using DuPont System and ROI-ROE Analysis in Excel program

#### **5. Forecast companies incomes**

- Analysis companies revenues for a certain period by using Excel Data tables
- Future growth modelling
- Forecasting companies product price and future unit sales by using Pivot tables and Sales analysis of Excel program

#### **6. Assessment of an optimal sales volume by managing risks**

- CVP analysis
- Inbound and outbound types of sales strategies
- Forecast companies optimal sales volume by managing risk, which could be done using St.Dev function of Excel

#### **7. Investment and portfolio organization and analysis**

- How to manage the stocks, bonds, and investments of companies
- Investment and portfolio management strategies, debt and equity securities, securities markets, and risk management. and trends in investing
- Determining final price and annual revenues of bonds, stocks, state stocks, predicting annual expected returns by using Solver function of Excel and doing Regression analysis

#### **8. Securities and options valuation**

- Types of options, their difference and usage advantages
- Value of an option
- Forecast options future value by doing Linear equal analysis and VaR analysis in Excel

#### **4. Teaching methodology of the course**

- 1: Interactive approach for the learning procedures (lectures, seminars, workshops).
- 2: Availability of computer room with projectors, possibility to the data bases of different companies.
- 3: Improvement of students analytical thinking by analysing the actual results of companies activities.
- 4: Case studies, intellectual games for separate groups of students about situational analysis, risk overcoming, hasty and accurate decision-making.
- 5: Practical trainings in a certain company, which could help to improve theoretical knowledge and learn more in the profession.



## **5. Labour market relevance of the course**

1: This study program should be enriched with practical seminars, which will allow students to experience the practical application of obtained knowledge with specific examples on RA and international companies.

2: Modern world is going to IT technologies, to the usage of Now-how-s and learning all these the financier could do different analysis, forecasts, which would help to identify the companies future activity. Students, studying this subject would be able easily use computer skills in financial planning (the course includes both modelling and finance) and as a result they would be high demanded by a labour market.

3: After finishing the course, students will be able to analyse financial risks, to do forecasts and as a result try to increase companies profitability and to grow the company at an optimal rate by using tools of Excel program.

4: At last, when finishing studying this course, it will assure a win-win situation for the students and employees.

## **6. Assessment and grading**

Class participation – 20%

Assignments (group works, individual analysis, special games, which are assigned to the students by lecturer) – 30%

Mid Term exam- 20%

Final exam – 30%

We shall try to present the whole within a hundred percent and distribute it in following way:

### **Class participation – 20%**

This includes both class attendance and participation. At the end of the semester the student may be assessed for activity (for assigned tasks which he had done during the semester), taking into account the attendance. And if the absence will be more than 20%, it would mean that the student wouldn't be able to get the maximum score for activity, even if he had high marks.

**Assignments – 30%** (group works, individual analysis, case study presentations (individual and group), special games, which are assigned to the students by lecturer)

The assessment will be made as follows: for example, in case of individual analysis the lecturer will assess the relevance of analysis to the topic, will also assess its annotation, technical parts, in one word: form of the paper – 15%, paper content – 35%, oral presentation – 50%.

### **Mid Term exam- 20%**

The main aim of mid term exam is to discover how much the student has mastered the subject and if the majority of students will bad present any topic, then the lecturer should provide at least one lesson to that topic, should present the sections that are incomprehensible for the students

### **Final exam – 30%**

Presentation of the whole material studied within the subject during the semester. There will be examination tickets, each student will get one ticket in accidental principle. The student will have approximately 20-30 minutes for preparing and then will orally answer the questions included in his examination ticket.

## 7. References

- **«Microsoft Excel Data Analysis and Business Modelling»** (5th Edition), Wayne L. Winston, Washington 2016
- **«Financial Modelling For Equity Research»**: A Step-by-Step Guide to Earnings Modelling. John Moschella, Gutenberg 2017
- **«Financial Modeling in Excel “For Dummies”»**  
Danielle Stein Fairhurst, New Jersey, 2017
- **«Financial Forecasting, Analysis, and Modelling: A Framework for Long-Term Forecasting»** (The Wiley Finance Series) 1st Edition. Michael Samonas, 2015
- **«Financial Analysis, Planning and Forecasting: Theory and Application»**  
Cheng F Lee, John Lee, 3rd edition. October 16, 2016

## **8. Course assignments**

### **8.1 Assignment 1**

Group work – to make financial statement analysis for a certain company, which could be done by using different tools of Excel program (Pivot table, Power BI, VaR model, Regression, Sales analysis, and so on), as without those tools it is impossible to do financial modelling or to make the accurate financial planning for companies. In scopes of group work students will do the following:

- to calculate its profitability,
- to forecast companies sales by using Pivot tables of Excel program,
- to predict future revenues,
- create a budget plan,
- build a financial model

### **8.2 Assignment 2**

After studying responsibilities that lie on the shoulders of financial planning and analysis, we are expected to provide upper management with analysis and advice regarding how to most effectively utilize the company's financial resources to increase profitability and grow the company at an optimal rate, while avoiding putting the company at serious financial risk. After all students will try to create a company's financial statements – balance sheets, cash flow statements, income statements, and in the case of public companies, shareholders' equity statements. For mentioned they have to create and analyze reports. Performing corporate financial analysis includes doing a great deal of data collection and data consolidation, and then generating numerous reports with lots of variables. A lot of the work of financial analysis involves examining key financial metrics, such as profit margins, sales volume, and inventory turnover, and then utilizing the analysis to create strategic financial planning to move the company forward to the next level of profitability.

## **Annex: Presentation slides**