1. COURSE IDENTIFICATION

1.- COURSE:

Name: Financial Instruments
Code: b305 - SIGMA: 13280
Year (s) course is taught: 3rd Year
Semester (s) when the course is taught: Second
Type: Compulsory
ECTS: 6
Hours ECTS: 30
Language: English and Spanish
In-class teaching
Degree (s) in which the course is taught: Business Management
School of Business and Economics

2.- ORGANIZATION OF THE COURSE:

Department: Business Economics
Area of knowledge: Financial Economics and Accounting

2. LECTURERS OF THE COURSE

1.-LECTURERS:

Instructor in charge
Name: Jose Luis MATEU GORDON
Phone (ext): 91-456-63-00 (5421)
Email: matgor@ceu.es
Office: 1.07 B

Lecturer(s)
Name: Vicente TENA RODRIGUEZ
Phone (ext): 91-456-63-00 (5519)
Email: tenrod@ceu.es
Office: 1.02 B

Lecturer(s)
Name: Alexey de la LOMA JIMENEZ
Phone (ext): 91-456-63-00 (5428)
Email: alexey.delalomajimenez@ceu.es
Office: 1.06 B

2.- TUTORIALS:
For any queries students can contact lecturers by e-mail, phone or visiting their office during the teacher’s tutorial times published on the students’ Virtual Campus. Campus.

3. COURSE DESCRIPTION

In this subject, Financial Instruments, the student is going to study the Modern Portfolio Theory, which is the base of the wealth management industry. The Modern Portfolio Theory explains the basic concepts of risk and return of both financial securities and securities portfolios, the diversification approach, the referenced market, the investor’s profile, the securities volatility, and many other relevant financial topics. Additionally, students will learn the main characteristics and trading features of different financial securities, such as, bonds (fixed-income), stocks (shares), financial derivatives (futures and options), and financial savings products and financial investment vehicles, such as mutual funds, pension funds, and ETFs.

4. SKILLS

1.- SKILLS

<table>
<thead>
<tr>
<th>Code</th>
<th>Basic and General Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS1</td>
<td>Students should have demonstrated that they have gained knowledge of and understand an area of study at a level beyond secondary education that, even though based on advanced textbooks, it also includes aspects that are acquired from knowledge deriving from the state-of-the-art of the field of study.</td>
</tr>
<tr>
<td>BS2</td>
<td>Students should know how to apply their knowledge to their work or vocation in a professional manner and should have the skills that are usually demonstrated by compiling and defending arguments and resolving problems within their area of study.</td>
</tr>
<tr>
<td>BS3</td>
<td>Students should have the capacity to collect and interpret relevant data (usually within their area of study) to form opinions based on reflection on relevant topics of a social, scientific or ethical nature.</td>
</tr>
<tr>
<td>BS4</td>
<td>Students should be capable of communicating information, ideas, problems and solutions to both a specialist and non-specialist audience.</td>
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<tr>
<td>GS1</td>
<td>Capacity for analytical and critical thinking</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Specific Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS2</td>
<td>Capacity to identify, formulate and resolve problems, applying professional criteria and understanding the competitive and institutional position of the organization, identifying its strengths and weaknesses.</td>
</tr>
<tr>
<td>SS4</td>
<td>Capacity of critical analysis in quantitative and qualitative terms, including data analysis, interpretation and extrapolation to a given business reality.</td>
</tr>
<tr>
<td>SS6</td>
<td>Capacity to use information technology applied to business and to identify the relevant sources of economic information and their contents.</td>
</tr>
</tbody>
</table>

2.- LEARNING OUTCOMES:
Learning outcomes
Identify the optimal securities portfolio for investors following a mean-variance approach. Identify and illustrate the most relevant financial securities: fixed-income, stocks, financial derivatives, etc.

5. EDUCATIONAL ACTIVITIES

1.- DISTRIBUTION OF STUDENTS` ASSIGNMENT:

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>On-campus hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA2</td>
<td>Seminar</td>
<td>52</td>
</tr>
<tr>
<td>EA3</td>
<td>Practical Workshop</td>
<td>3</td>
</tr>
<tr>
<td>EA4</td>
<td>Practice</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TOTAL Hours</td>
<td>59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Not on-campus hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA0</td>
<td>Independent Work</td>
<td>121</td>
</tr>
</tbody>
</table>

2.- EDUCATIONAL ACTIVITIES:

<table>
<thead>
<tr>
<th>Educational Activity</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar</td>
<td>Educational activity focused especially on the competence of the students to develop the learning skills enabling them to assimilate content acquired beforehand, while relating economic concepts and those of similar and/or auxiliary disciplines and different theoretical and methodological approaches. Students study each subject in depth to a large extent independently. This educational activity is also centered on encouraging students to acquire the skills necessary to communicate their conclusions – and the understanding and underlying reasons supporting them – to both the specialist and non-specialist public clearly and unequivocally. Priority is given to the participation of students and their sharing of the reasoned interpretation of knowledge and the sources of their fields of study, all of which is coordinated by the professor.</td>
</tr>
<tr>
<td>Practical Workshop</td>
<td>Educational activity focused especially on the competence of the students to use specific methodologies for resolving problems of a practical nature encountered by economists in their most applied aspects and/or the information technology tools relevant to each subject. Priority is placed on students undertaking practical activities focused on data manipulation and selection of quantitative and/or qualitative information for purposes of extracting/drawing relevant conclusions.</td>
</tr>
</tbody>
</table>
Practice

Educational activity focused especially on the competence of the students to collect, manipulate and process relevant data and variables for economic, statistical, financial, accounting and tax analyses. Priority is placed on students undertaking activities that involve the application of theoretical and/or technical knowledge acquired, which may be done individually or in a group, depending on the subject and the skills to be acquired.

Independent Work

Educational activity whereby students independently manage their own learning by the study of the course material.

6. ASSESSMENT OF LEARNING

1.- CLASS ATTENDANCE:

- In order to be eligible for examination by continuous assessment students must attend at least 75% of scheduled class time (attendance sheets will be used). As students may be absent 25% of the classes, no attenuating circumstances will be accepted for absences.
- Students who could reasonably justify why they cannot attend classes in the percentage stated above, must report these reasons to their professor at the right beginning of the course. In this particular case, professors will establish the corresponding Course Plan adapted to pass the subject. The lack of communication or the delayed communication by students imply that these students will be evaluated using the same criteria as the rest of their colleagues.

2.- ASSESSMENT SYSTEM AND CRITERIA:

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS1</td>
<td>Written examination of essay-type questions.</td>
<td>35%</td>
</tr>
<tr>
<td>AS3</td>
<td>Written examination on reasoning questions.</td>
<td>25%</td>
</tr>
<tr>
<td>AS9</td>
<td>Submission of exercises.</td>
<td>20%</td>
</tr>
<tr>
<td>AS6</td>
<td>Teamwork</td>
<td>20%</td>
</tr>
</tbody>
</table>

ORDINARY EVALUATION

Continuous Evaluation includes:
- **Test (10%)**: Specific test conducted to evaluate the students’ acquired knowledge during the course. It could be made of short theoretical questions and/or practical cases.
- **Practical Cases (40%)**: It is based on the students’ classroom participation, through oral exposition, written exercises, practical case discussions, and all kinds of instruments conducted to help students to follow the subject in a day-to-day basis, using Excel and Bloomberg.
- **Final Exam (50%)**: It is made up of 5 to 10 questions covering theory and practice, and it also contains some practical cases.

To pass this subject, students should:
- Achieve, at least, a 4.5 qualification in the final exam and,
- Achieve, at least, 5 points when aggregating all evaluation items.
EXTRAORDINARY EVALUATION

Students who do not pass the subject in the ordinary examination must take the extraordinary examination, and this extraordinary examination contains all testable material that has been covered during the course, including all material covered during the practical cases and exercises. Extraordinary Evaluation is made up of:

- Final Exam: it is made up of 5 to 10 questions covering theory and practice, and it also contains some practical cases.

7. COURSE SYLLABUS

1.- COURSE SYLLABUS:

THEORETICAL:

Chapter 1: VALUATION OF RISKY SECURITIES PORTFOLIOS.
1.1. Securities portfolios.
1.2. Measuring risk and return using ex-post and ex-ante data.
1.3. Measuring risk and return of a risky securities portfolio.
1.4. Return components: the characteristic line.
1.5. Risk components of a securities portfolio and diversification.
1.6. Analysis of risk and return of mixed-securities portfolios.
1.7. The Markowitz model to select optimal portfolios: the mean-variance approach.
1.8. Evaluation and comparison of investment portfolios.
   1.8.1. Sharpe ratio, Treynor ratio and Sortino ratio.
   1.8.2. Jensen’s alpha, information ratio, and Tracking Error.

Chapter 2: WEALTH MANAGEMENT: SECURITIES AND FINANCIAL VEHICLES.
2.1. Wealth management and collective investments.
2.2. Collective investment institutions: mutual funds and investment institutions.
2.3. Investment advantages through collective investment institutions.
2.4. Mutual funds:
   2.4.1. Classification and institutional elements.
   2.4.2. NAV.
   2.4.3. Fee structure.
2.4. Pension funds: main characteristics.
2.5. Comparative analysis between mutual and pension funds.

Chapter 3.- FIXED-INCOME SECURITIES.
3.1. Main characteristics of fixed-income and stock market securities.
3.2. Spanish Securities Exchanges: BME and ESIs
3.3. Fixed-income exchanges. AIAF, SENAF, SEND, MARF and the stock exchange
3.4. Fixed-income securities.
3.5. Issuing mechanisms in the primary market of government bonds.
3.6. Corporate bonds.

Chapter 4: STOCK MARKET SECURITIES.
4.1. The Spanish Stock Market (known as Mercado Continuo).
4.1.1. The continuous exchange.
4.1.2. The fixing exchange.
4.1.3. The Latibex exchange.
4.1.4. The MAB.
4.2. Stock market orders.
4.3. Stock market indices.
4.4. Stocks: concept, classification and returns.

Chapter 5: FINANCIAL DERIVATIVES.

5.1. Introduction to financial derivatives.
5.2. Financial derivatives exchanges.
5.3. Financial futures.
5.4. Financial options.
   5.4.1. Call Options.
   5.4.2. Put Options.

8. BIBLIOGRAPHY

1.- BASIC BIBLIOGRAPHY:


2.- ADDITIONAL BIBLIOGRAPHY:

3.- WEB RESOURCES:

Financial Information System: BLOOMBERG
Financial Information Website: www.bloomberg.com
Yahoo Finance Resources: www.finance.yahoo.com
Spanish Stock Market Exchanges: www.bolsasymercados.es
Spanish Stock Market Exchange Commission: www.cnmv.es
Technical Analysis Software: www.prorealtime.com
Mutual Funds Resources: www.morningstar.es
Economic and Financial Press: www.cotizalia.com
Economic and Financial Press: www.eleconomista.es
Economic and Financial Press: www.expansion.com
Economic and Financial Press: www.cincodias.com

9. ATTITUDE IN THE CLASSROOM

1.- REGULATIONS

Any irregular act of academic integrity (no reference to cited sources, plagiarism of work or inappropriate use of prohibited information during examinations) or signing the attendance sheet for fellow students not present in class will result in the student not being eligible for continuous assessment and possibly being penalized according to the University regulations.

The teaching unit will decide, in each case, the sanction that will be applied to those students who are expelled from the classroom.

10. EXCEPTIONAL MEASURES

Should an exceptional situation occur which prevents continuing with face-to-face teaching under the conditions previously established to this end, the University will take appropriate decisions and adopt the necessary measures to guarantee the acquisition of skills and attainment of learning outcomes as established in this Course Unit Guide. This will be done in accordance with the teaching coordination mechanisms included in the Internal Quality Assurance System of each degree.