Professional Software in Finance

ECTS: 6 ECTS

COORDINATOR: Carlos Vázquez Cendón (carlosv@udc.es)

UNIVERSITY WHERE THE COORDINATOR IS: UDC

HAVE YOU GIVEN PERMISSION TO RECORD YOUR CLASSES? No

LECTURER 1: Mercedes Fernández Veiga (mercedes.fernandez.veiga@santanderam.com)

UNIVERSITY WHERE THE LECTURER 1 IS: UDC

HAVE YOU GIVEN PERMISSION TO RECORD YOUR CLASSES? No

LECTURER 2: María del Carmen Calvo Garrido (mcalvog@udc.es)

UNIVERSITY WHERE THE LECTURER 2 IS: UDC

HAVE YOU GIVEN PERMISSION TO RECORD YOUR CLASSES? Yes

SUBJECT CONTENTS

1. An overwiev of software toolboxes in finance
2. Introduction to Excel for finance
3. Interaction Excel – VBA – Matlab: Excel Link
4. Specific Matlab Toolboxes for finance
5. Software development for financial applications with Excel and Matlab

6. Software development for financial applications with Python

7. Specific Python toolboxes for finance

METHODOLOGY

Easy financial case studies presentations to be developed by student by using computer sofware under teacher supervision will be delivered during the course. Course sessions are mainly practical and the teacher will propose exercises to be sequentially solved. Practical applications of contents previously explained in Mathematical Models in Finance will be addressed.

LANGUAGE USED IN CLASS: Spanish

IS IT COMPULSORY TO ATTEND CLASS? In the university where the teacher is.

BIBLIOGRAPHY

Excell Guides

inancial Toolbox User's Guide, The Math Works Inc.

Financial Derivatives Toolbox User's Guide, The Math Works Inc.

Python Guides

Also references in the bibliography of Mathematical Models in Finance may be used.

SKILLS

Basic:

CG1: To have knowledge that provide a basis or opportunity for originality in developing and / or applying ideas, often within a research context, knowing how to translate industrial needs in terms of R & D in the field of mathematics Industrial.

CG4: To have the ability to communicate the findings to specialist and non-specialist audiences in a clear and unambiguous way.

Specific:

CE4: To be able to select a set of numerical techniques, languages and tools, appropriate to solve a mathematical model.

Numerical specialization:

CS1: To know, be able to select or use how to handle most suitable professional software tools (both commercial and free) for the simulation of processes in the industrial and business sector.

CS2: To adapt, modify and implement software tools for numerical simulation.

WILL YOU BE USING A VIRTUAL PLATFORM? No.

WILL YOU BE USING ANY SPECIFIC SOFTWARE? Excell, MATLAB and Python

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CRITERIA FOR THE 1ST ASSESSMENT OPPORTUNITY

Qualifications will be obtained from:

- Exercises and proposed practical tasks (at least 60%); skills CG1, CG4, CE4, CS1 and CS2 will be evaluated.

- An exam (at least 10%); skills CG1, CG4, CE4, CS1 and CS2 will be evaluated.

CRITERIA FOR THE 2ND ASSESSMENT OPPORTUNITY

Qualifications will be obtained from:

- Exercises and proposed practical tasks (at least 60%); skills CG1, CG4, CE4, CE5, CS1 and CS2 will be evaluated.

- An exam (at least 10%); skills CG1, CG4, CE4, CS1 and CS2 will be evaluated.
