COURSE DATA

DATA SUBJECT

Code: 42216
Name: Fixed interest models (extension)
Cycle: Master's Degree
ECTS Credits: 4
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2081 - Master's Degree in Banking and Quantitative Finance	Facultat d'Economia	2	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
2081 - Master's Degree in Banking and Quantitative Finance	Optional subjects	ELECTIVES

COORDINATION

TORRO I ENGUIX HIPOLIT

SUMMARY

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

DESCRIPTION OF CONTENTS

1.

2.

3.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	20,00
Computer classroom practice	10,00
Classroom practices	10,00
Total hours	**40,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**0,00**

TEACHING METHODOLOGY

EVALUATION

REFERENCES

- 1. Chan, K.C., G.A. Karolyi, F.A. Longstaff and A.B. Sanders (1992). An Empirical Comparison of Alternative Models of the Short-Term Interest Rate. Journal of Finance, 47, 3, 1209-1227. 2. Cox, J.C., J.E. Ingersoll, and S.A. Ross (1985a). An Intertemporal General Equilibrium Model of Asset Prices. Econometrica, 53, 2, 363-384. 3. ----- (1985b). A Theory of the Term Structure of Interest Rates. Econometrica, 53, 2, 385-408. 4. Jamshidian, F. (1989). An Exact Bond Option Formula. Journal of Finance, 44, 1, 205-209. 5. León-Pérez, B., and M. Moreno (2024). Fixed-Income Average Options: A Pricing Approach Based on Gaussian Mean-reverting Cyclical Models, Annals of Operations Research, disponible en https://doi.org/10.1007/s10479-024-05904-x. 6. Moreno,

M. (2000). Modelización de la estructura temporal de los tipos de interés: valoración de activos derivados y comportamiento empírico. Revista Española de Financiación y Contabilidad, Vol. XXIX, 104, 345-376. 7. Moreno, M., A. Novales, and F. Platania (2017). A Term Structure Model under Cyclical Fluctuations in Interest Rates, Economic Modelling, 72, 140-150. 8. Vasicek, O. (1977). An Equilibrium Characterization of the Term Structure. Journal of Financial Economics, 5, 2, 177-188.

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- ARTICULOS QUE OFRECEN SURVEYS DE LA LITERATURA 1. Boero, G. and C. Torricelli (1996). A Comparative Evaluation of Alternative Models of the Term Structure of Interest Rates. European Journal of Operational Research, 93, 1, 205-223. 2. Schmidt, W.M. (2011). Interest Rate Term Structure Modelling. European Journal of Operational Research, 214, 1, 1-14. 3. Vetzal, K.R. (1994). A Survey of Stochastic Continuous Time Models of the Structure of Interest Rates. Insurance, Mathematics and Economics, 14, 2, 139-161.