

**COURSE DATA****DATA SUBJECT****Code:** 42210**Name:** Derivatives (extension)**Cycle:** Master's Degree**ECTS Credits:** 6**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

CARCHANO ALCINA OSCAR

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.**



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WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Computer classroom practice	15,00
Classroom practices	15,00
Total hours	60,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
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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

- Black, F. and M. Scholes (1973). The Pricing of Options and Corporate Liabilities. *Journal of Political Economy*, 81, 3, 637-654. - Hull, J. (2017). *Options, Futures and other Derivatives*, Prentice Hall, 11th edition. - Kemna, A.G.Z. and Vorst, A.C.F. (1990). A Pricing Method for Options Based on Average Asset Values. *Journal of Banking and Finance*, 14, 113-129. - 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>. - Moreno, M. and J.F. Navas (2008). Australian Options. *Australian Journal of Management*, 33, 1, 69-93. - Moreno, M., A. Novales, and F. Platania (2017). A Term Structure Model under Cyclical Fluctuations in Interest Rates, *Economic Modelling*, 72, 140-150. - ——— (2019). Long-Term Swings and Seasonality in Energy Markets. *European Journal of Operational Research*, 279, 3, 1011-1023.
- Business cases 1. Speculation in the Financial Futures Market: A Local Tries to Break the Bund (London Metropolitan University 299-009-1). 2. Metallgesellschaft AG (IMD 3-0613). 3. The Collapse of Barings (London Business School 401-020-1). 4. The Collapse of Barings (London Business School 401-021-1). 5. Pine Street Capital (HBS 9-201-071). 6. American Barrick Resource Corporation: Managing Gold Price Risk (HBS 9-293-128)