## ISCED classification of the exams

You must assign an <u>ISCED-F 2013 detailed field code</u> to each exam you passed during your undergraduate or previous master program. This guide helps you map each course to the right UNESCO classification, focusing on fields most relevant to **Quantitative Finance**.

### **GENERAL INSTRUCTIONS**

#### When in doubt, follow this decision process:

- 1. **Check the course** title and **syllabus**: Is the emphasis more on mathematical theory, application to economics, or computational tools?
- 2. **Use dominant content** as the classification key. For example:
  - An Econometrics course that focuses on regression theory, classified under Statistics (0542). An Econometrics course focused on macro models, classified under Economics (0311).
- 3. Avoid duplication: Each exam must be assigned one main field only.
- 4. **Use the closest match** from the UNESCO guide: If an exact match does not exist, **choose the nearest relevant subfield**.
- 5. **Multidisciplinary exams**: classify based on the **discipline most central** to the course objectives.

## 1. MATHEMATICS (ISCED 0541)

Use this for pure and applied mathematics, logic, mathematical modelling, and computational mathematics.

Course Name Refer to the field you consider the nearest to the course	ISCED Code	Notes
Calculus	0541	Derivative, integrals, multivariate calculus.
Linear Algebra	0541	Matrices, eigenvalues, vector spaces.
Real Analysis	0541	Limits, continuity, measure theory.
Complex Analysis	0541	Holomorphic functions, complex integrals.
Differential Equations	0541	Ordinary and Partial Differential Equations
Discrete Mathematics	0541	Logic, combinatory, graph theory.
Mathematical Modelling	0541	Applied problems with math models.

Functional Analysis	0541	Banach and Hilbert Spaces
Optimization Theory	0541	Convex optimization, Lagrange multipliers
Stochastic Processes	0541	Brownian motion, Itô Integral.

# STATISTICS (ISCED 0542)

Use this for probability, statistical theory, inference, and applied data analysis.

Course Name Refer to the field you consider the nearest to the course	ISCED Code	Notes
Probability and Statistics	0542	Basic theory, distributions, estimation
Advanced Probability	0542	Random variables, limit theorems
Statistical Inference	0542	Confidence intervals hypothesis testing
Econometrics I	0542	Linear regression models
Time Series Analysis	0542	ARMA, ARCH, GARCH models
Econometrics II	0542	Multivariate regression models (VAR)
Bayesian Statistics	0542	Prior, posterior distributions
Applied Statistics	0542	R, Python, solve problems with real data
Multivariate Statistics	0542	PCA, clustering, ANOVA
Machine Learning	0542	If the focus is on statistical models

# **ECONOMICS (ISCED 0311)**

Use this for all economic theory, macro/micro analysis, and financial economics

Course Name Refer to the field you consider the nearest to the course	ISCED Code	Notes
Microeconomics	0311	Consumer theory, game theory
Macroeconomics	0311	Growth, unemployment, inflation
Mathematical Finance	0311	Pricing of bonds, swaps, derivatives
Financial Economics	0311	Utility theory
Asset pricing theory	0311	CAPM, APT, stochastic discount factor
Interest Rates Models	0311	Vasicek, CIR, HJM models

Risk Management	0311	Value at Risk, expected shortfall
Computational Finance	0311	Monte Carlo, numerical PDE