

## What is Financial Mathematics?

The last decades witnessed a strong insertion of refined mathematical techniques into the center of the financial industry. In the 1980's, the main investment banks started to employ mathematicians, physicists and engineers to become "financial engineers". All these developments will lead to a further demand for talented and enthusiastic young people who are trained in the field of Financial Mathematics. The Institute of Applied Mathematics (IAM), ever since its establishment in 2002, has been responding to this emerging trend in the Turkish finance industry and economy, by developing and maintaining an interdisciplinary program that is introducing students to stochastic models and mathematical techniques



## Financial Mathematics Program

The Financial Mathematics program at IAM combines the strengths of the Departments of Mathematics, Business Administration, Economics, Statistics, Physics and Industrial Engineering of Middle East Technical University.

Institute of Applied Mathematics (IAM) is offering M.Sc. and Ph.D. programs in Financial Mathematics. The programs are mainly based on the following topics:

- Stochastic differential equations with their solutions; Stochastic control; Stochastics Dynamic Processes
- Portfolio optimization; Risk modeling and management
- Stochastic modelling; Pricing and hedging; Model calibration; Parameter estimation
- Financial market analysis with machine learning

Graduates of the program have advantages such as gaining the necessary knowledge and skills to understand and apply existing and developing techniques in Financial Mathematics and related fields, analyzing, consulting and managing financial markets in Turkey and the world, and taking part in technical subjects such as pricing and modeling in energy markets.



## Career Prospects

- Central Bank of the Turkish Republic
- Banking Regulation and Supervision Agency
- Banks
- T.R. Energy Market Regulatory Authority
- The Scientific and Technological Research Council
- Turkish Statistical Institution
- Borsa İstanbul
- Universities



## Admission Requirements and Application

For admission requirement please visit

<https://iam.metu.edu.tr/en/application-and-admission>

## Contact

For contact information please visit

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