### Scientific Preparation Program (M.Sc.)
- IAM 527: Advanced Calculus and Integration
- IAM 592: Programming Tech in Appl. Math. II

### M.S. Thesis Program
- IAM 520: Financial Derivatives
- IAM 522: Stochastic Calculus for Finance
- IAM 524: Financial Economics
- IAM 541: Probability Theory
- IAM 580: M.S. Thesis (non-credit)
- IAM 590: Graduate Seminar (non-credit)
- 4 elective courses

### M.S. Non-Thesis Program
- IAM 520: Financial Derivatives
- IAM 521: Financial Management
- IAM 522: Stochastic Calculus for Finance
- IAM 524: Financial Economics
- IAM 541: Probability Theory
- IAM 589: Term project (non-credit)
- IAM 590: Graduate Seminar (non-credit)
- 5 elective courses

### Ph. D. Program
- BA5814: Investment Management
- IAM 614: Methods of Computational Finance
- IAM 615: Advanced Stochastic Calculus for Finance
- IAM 600: Ph.D. Thesis (non-credit)
- 4 elective courses

### Ph. D. on B.Sc. Degree Requirements
- IAM 520: Financial Derivatives
- IAM 521: Financial Management
- IAM 522: Stochastic Calculus for Finance
- IAM 524: Financial Economics
- IAM 541: Probability Theory
- BA5814: Investment Management
- IAM 614: Methods of Computational Finance
- IAM 615: Advanced Stochastic Calculus for Finance
- IAM 589: Graduate Seminar (non-credit)
- IAM 600: Ph.D. Thesis (non-credit)
- 6 elective courses

### Elective Courses
- IAM 525: Game Theory
- IAM 526: Time Series Applied to Finance
- IAM 529: Applied Nonlinear Dynamics
- IAM 530: Elements of Probability and Statistics
- IAM 543: Regulatories and Supervision of Financial Risks
- IAM 546: Actuarial Risk Theory
- IAM 550: Portfolio Optimization
- IAM 564: Financial Risk Assessment
- IAM 554: Interest Rate Models
- IAM 556: Simulation
- IAM 557: Statistical Learning and Simulation
- IAM 566: Numerical Optimization
- IAM 572: Finite Elements: Theory and Practice
- IAM 664: Inverse Problems
- IAM 665: Advanced Continuous Optimization
- IAM 672: Control and Optimization of Differential Equations
- IAM 754: Special Topics: Financial Econometrics
Why Study Financial Mathematics?

Financial Mathematician as a profession has consistently been rated one of the top jobs in many countries. Financial Mathematicians are always in demand as long as financial decision making is crucial. They participate in high-level business decision-making in every industry and are the back bones for companies in financial sector.

Importance of Financial Mathematics in Turkey

Financial Mathematics develops an understanding of the fundamental probability tools for quantitatively modeling the financial tools and demonstrates an ability to apply these tools to problems encountered in finance.

Turkey has encountered a risky financial environment due to its growing economy with abridging west and east economies which makes the country a financial hub in the Middle East.

Economic growth forces Turkey to improve its financial markets to develop present financial instruments. This requires the need of broad analysis of financial markets and instruments, and to have well-educated analysts to deal with modelling and development of strategies.

Objectives of Financial Mathematics Program

Better understanding of financial dynamics to derive and extend the mathematical or numerical models.

Assessment and modelling of financial risk, credit risk, operational risk and actuarial risk to analyze and evaluate financial assets are some of the unique abilities financial mathematics bestow.

The students are educated to gain ability to identify, quantify, assess and manage the risk uncertainty for real life problems using financial tools.

Job Opportunities

Financial Mathematics is highly desirable in management positions because of their multidisciplinary background and strong quantitative emphasis. Job opportunities both in public and private sectors are; Central Bank of the Republic of Turkey (TCMB), Banking Regulation and Supervision Agency (BDDK), Private Banks, Republic of Turkey Energy Market Regulatory Authority (EPDK), The Scientific and Technological Research Council of Turkey (TÜBİTAK), Turkish Statistical Institution (TUİK), Minister of Health of the Republic of Turkey, Borsa İstanbul, ASELSAN

Admission Requirements and Application

The selection process requires documentation of the followings:

- METU-EPE (English Proficiency Exam) ≥ 65 or TO-EFL-IBT ≥ 79
- ALES ≥ 75 or GRE-Quantitative Score ≥ 713
- At least 2 reference letters
- Letter of intention

Application Deadline to program: June 22, 2017
Application Deadline to EPE: June 07, 2017
Applicants will be interviewed when necessary.