

Scientific Preparation Programme

IAM 530 Elements of Probability and Statistics
IAM 591 Programming Tech.in Appl.Math.I
IAM 592 Programming Tech.in Appl.Math.II

M.S. Thesis Program

IAM 546 Actuarial Risk Theory
IAM 549 Fundamentals of Insurance
IAM 582 Life Insurance Mathematics
IAM 500 M.S. Thesis (non-credit)
IAM 590 Graduate Seminar (non-credit)
IAM 698 Ethics and Research Methods (non-credit)
4 elective courses and
Compulsory Summer Internship

M.S. Non-Thesis Program

IAM 546 Actuarial Risk Theory
IAM 549 Fundamentals of Insurance
IAM 582 Life Insurance Mathematics
IAM 583 Pension Fund Modeling
IAM 584 Advanced Actuarial Mathematics
IAM 589 Term project (non-credit)
IAM 590 Graduate Seminar (non-credit)
IAM 698 Ethics and Research Methods (non-credit)
5 elective courses
Compulsory Summer Internship

Elective Courses

IAM 520 Financial Derivatives
IAM 521 Financial Management
IAM 524 Financial Economics
IAM 526 Time Series Applied to Finance
IAM 530 Elements of Probability and Statistics
IAM 541 Probability Theory
IAM 543 Regulation and Supervision of Financial Risks
IAM 547 Risk Management & Insurance
IAM 522 Stochastic Calculus for Finance
IAM 552 Credibility Theory

IAM 554 Interest Rate Models
IAM 555 Statistical Decision Theory
IAM 556 Simulation
IAM 558 Reinsurance Theory
IAM 584 Advanced Actuarial Mathematics
BA 5514 Risk Management
BA 5814 Investment Management

Admission Requirements and Application

The selection process requires documentation of the followings:

- **English Proficiency:**
METU-EPE ≥ 64.5 or TOEFL ≥ 79
- **Graduate Exam:**
M.Sc.: ALES ≥ 70 or GRE-quant. ≥ 155 (≥ 696)
Ph.D.: ALES ≥ 75 or GRE-quant. ≥ 156 (≥ 713)
- **Reference Letters:** At least 2
- **Letter of intention**
- **Oral Interview** if necessary.

Application Deadlines to the Program and EPE are usually in June. We strongly recommend you to follow the deadlines from the link given below.

For application deadline and more information:
<http://iam.metu.edu.tr/universitys-application-page>

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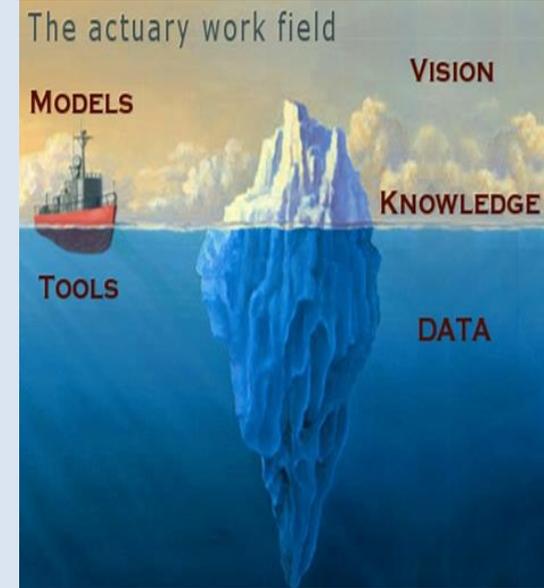
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Actuarial Sciences M.Sc. Program



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

Why Study Actuarial Sciences?

Actuary as a profession has consistently been rated one of the top jobs in many countries. Actuaries are always in demand as the world confronts risk. They participate in high-level business decision-making in every industry and are the back bones for the companies in financial and insurance sector.

Importance of Actuarial Sciences in Turkey

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

High rate of young population results in the change of population dynamics and this requires the need of actuaries to handle with pension system.

Frequently occurring natural catastrophes, especially earthquakes, require high demand for knowledgeable actuaries to make analysis and deal with modeling and strategy development.

Turkish regulations bring requirement for insurance companies to recruit at least one actuary which results in an urgent need for actuaries.

Objectives of Actuarial Sciences Program

Analysis and evaluation of financial assets require collaboration between unique abilities of actuarial science and financial engineering. Actuarial Science develops an understanding of the fundamental probability tools for assessing risk quantitatively and provides an ability to apply these tools to the problems encountered in actuarial science.

The graduates are educated to gain ability to make identification, quantification, assessment and management of risk uncertainty for real life problems through specified curriculum and provided internship opportunities.

The knowledge in Actuarial Sciences is applied in practice within the combined interdisciplinary experience of the IAM.

Suitable for Students from all Disciplines

The program is suitable for all students who have Bachelor's degree from Faculty of Sciences, Faculty of Economics and Administrative Sciences, Faculty of Engineering.

Actuarial Science is a multidisciplinary program providing a balanced training in the financial and mathematical analysis of complex insurance issues. It focuses on mathematical model-building in the various specialized fields of insurance: life insurance, non-life insurance, pension funds and reinsurance.

An actuarial degree makes you competent in Mathematics, Statistics, Economics, Finance and as well as in other subjects.

Job Opportunities

There is a big demand on the graduates of Actuarial Sciences program from Turkish Insurance sector. Students are required to spend summer internship in insurance companies which gives chance to find job opportunities. The 38 graduates of the Program work in **Insurance and Reinsurance companies, T.R. Undersecretariat Treasury, Social Security Institution, Insurance brokers and consultancy companies and banks**. The success of our students and graduate on the national and international Actuary Examinations is remarkable.

FACULTY

KESTEL, A. Sevtap

SEZER, A. Devin

YOLCU-OKUR, Yeliz

AFFILIATED FACULTY

AŞKAN, Ayşegül: Department of Civil Engineering, METU.

BATMAZ, İnci: Department of Statistics, METU

ERKAN BAŞBUĞ, B. Burçak: Department of Statistics, METU

GEBİZLİOĞLU, Ömer: International Trade and Finance, Kadir Has University

İLK-DAĞ, Özlem: Department of Statistics, METU

KORKMAZ, Selda: T.R. Undersecretariat Treasury, Insurance Regulatory Board

KORN, Ralf: Technical University Kaiserslautern.

KÜTÜK, Fikret: T.R. Undersecretariat Treasury, Insurance Regulatory Board

TALU-YOZGATLIGİL, Ceylan: Department of Statistics, METU

TANK, Fatih: Department of Insurance and Actuarial Sciences, Ankara University

WEBER, Gerhard-Wilhelm: Marketing and Economic Engineering, Proznan University

YILDIRAK, Kasırga: Department of Actuarial Sciences, Hacettepe University