



MSc in

Statistics

ATHENS UNIVERSITY OF
ECONOMICS & BUSINESS



STEVENS
INSTITUTE of TECHNOLOGY

School of Business

Presentation of the M.Sc. in Statistics at AUEB

by Prof. Dimitris Karlis

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30/10/2023

<https://www.aueb-analytics.gr/m-sc-in-statistics>

DEPARTMENT OF STATISTICS

ΤΜΗΜΑ
ΣΤΑΤΙΣΤΙΚΗΣ
DEPARTMENT OF
STATISTICS

Started in 1989

It is the only such dept in Greece

High reputation in market in Greece and Abroad

Active Research

URL: www.stat-athens.aueb.gr



Successfully
Certified in 2020

Msc in Statistics

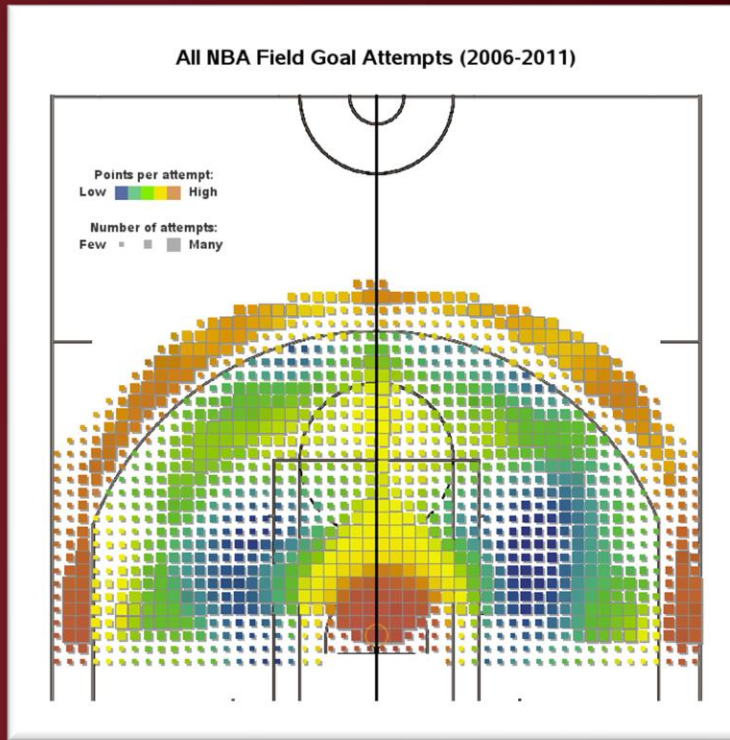
We started at 1996

Full time program (3 semesters)

English language

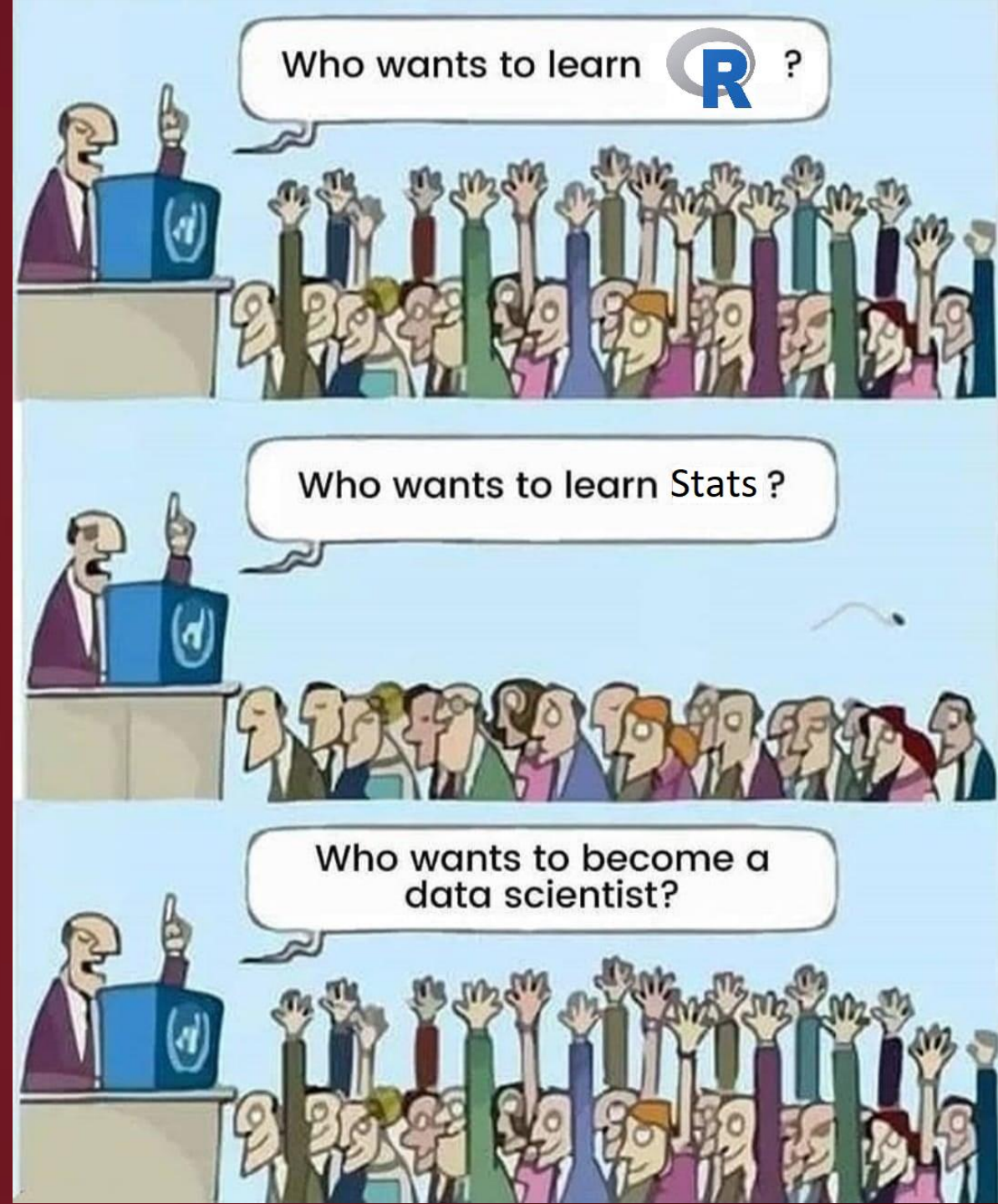
Mixture of theoretical and Applied courses

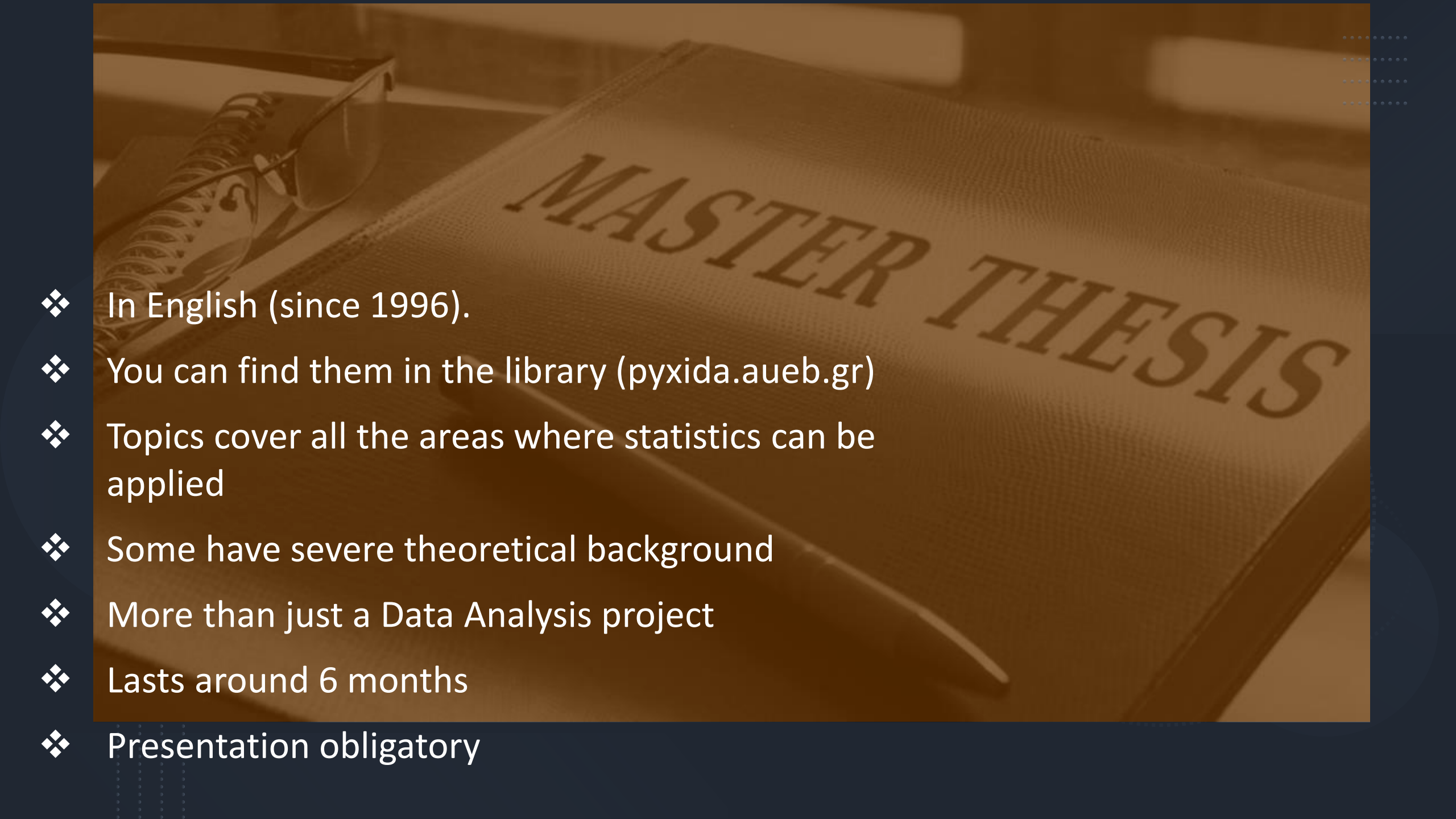
Exposure to several disciplines with application of statistical science (e.g. Biostat, Finance, Industry)



Targets- Aims

- ❑ Prepare students for the job market
- ❑ Prepare students to continue academic studies with a PhD
- ❑ Create graduates able to use “state of the art” methodologies
- ❑ Not simply practical focus!



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- ❖ In English (since 1996).
 - ❖ You can find them in the library (pyxida.aueb.gr)
 - ❖ Topics cover all the areas where statistics can be applied
 - ❖ Some have severe theoretical background
 - ❖ More than just a Data Analysis project
 - ❖ Lasts around 6 months
 - ❖ Presentation obligatory

- Scholarships
 - Academic merit scholarships for those with degree >8.5
 - From companies for the master thesis
- Master thesis through Erasmus program (so far, Dublin, Hasselt, Barcelona, Pavia etc)
- Internship (in Greece and abroad)
- Courses are always between 9-12 (exceptionally 12-3)

**ASTONISHINGLY
IMPORTANT
NOTES
AND STUFF**

SEMINAR SERIES

Every year there are short courses. With an extra certificate of attendance

Topics from past years

- ✓ Basketball Data Science
- ✓ Statistical models for Networks
- ✓ Categorical Data Analysis
- ✓ Economic modelling for sports
- ✓ Data Story Telling
- ✓ Machine Learning in biomedical sciences

&



Regular Seminar Series (one talk every month): Students are expected to attend

Short Courses for academic year 2022-2023

- Machine learning methods for Credit risk (November 2022)
- Ordinal Data Analysis (April 2023)

Note the seminar series of the Dept of Statistics with talks on research

<https://www.dept.aueb.gr/el/stat/content/ereynitikaseminaria>



Annual Summer School Event

We organize every year one summer school, event
in a Greek island (Aegina – 1 hour from Athens)

The topics so far

- Biostat (July 2022)
- Statistical Data Science (Sep 2023)



SAS Academic Specialization
Statistics and Data Science using SAS

Course Names	Semester	Teaching Hours	Total Learning Hours
1.Data Analytics and Programming	1	6	30
2.Regression Techniques and Time Series Analysis	2	9	45
3.Machine Learning and Big Data Analytics	3	15	75

To receive the Academic Specialization badge students must

- ✓ *Attend at least 80% of the teaching hours and*
- ✓ *Receive a passing grade in each of five graded assignments*

Internships

- ✓ EY (Consulting Company)
- ✓ IQVIA (Biostat- Health Economics)
- ✓ Frontier Science Foundation Hellas (Biostat)
- ✓ Fantasy Sports Interactive (Sports Analytics)
- ✓ MAPI (in Netherlands, past collaboration)

4-6 months paid work + insurance + plan to be hired after that + Msc thesis



Industry Related Thesis



- ✓ ELVAL (Greek Aluminum Company)
- ✓ IRI (New name Circana)
- ✓ FSFH
- ✓ Hellenic Statistical Authority (ELSTAT)
- ✓ iMEDd Lab (Data Journalism Lab)

erasmus



PLUS

Master Thesis Abroad- Erasmus+

Do your thesis in another European
University/City

The student can move as Erasmus student to a
European University we collaborate (we have a
bilateral agreement)

- ✓ One supervisor from each university
- ✓ Topic of common interest
- ✓ Positions are announced each March
- ✓ Our student have completed their theses
in: Cyprus, Hasselt (Belgium), Dublin×2
(Ireland), Barcelona, Milano

Important regulations

- ✓ You can fail in some courses **at most 3 times**
- ✓ You can be absent up to 30% of the lectures of a course, after that you need to repeat the course
- ✓ Courses will be delivered strictly in person

LAW
REQUIREM
AGENCY

Important

REGULATIONS

- ✓ You can fail in some courses **at most 3 times**
- ✓ You can be absent up to 30% of the lectures of a course, after that you need to repeat the course
- ✓ Courses will be delivered strictly in person

Infrastructure

Labs: you can have access and work there

- Troias and Spetson
- Evelpidon
- Antoniadou

Library

- Electronic access to many books and journals
- Some courses may have extra labs





Double/Dual M.Sc. Degree in Statistics & Financial Analytics

30/10/2023

<https://www.aueb-stats.com/stevens>

Contents

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- Courses @ AUEB

The Agreement

- *2+ years – 2 M.Sc. Degrees*
- *Specific Transferable Courses from Stevens to AUEB*
- *28.5/60 ECTS in Taught Courses at AUEB*
- *Fees at AUEB 4000€ (2023-24)*
- *Partial Scholarships for Students with Distinction*
- *Common M.Sc. Thesis.*

Why to complete the DD program

- *Two Complementary Degrees*
- *Strong Degree in Statistics from AUEB*
- *Degree in Financial Analytics and Data Science from STEVENS*
- *Strong Quantitative and Analytics Background*
- *Access to Internships in Greece and Erasmus program in EUROPE*
- *Experience Academic Life in a European City*

The Web-page



Double M.Sc. Degree in Statistics & Financial Analytics

2 Years - 2 Degrees

M.Sc. in Statistics from AUEB

M.Sc. in Financial Analytics from Stevens Institute of

Details are available here

<https://www.aueb-stats.com/>

<https://aueb-analytics.wixsite.com/dd-aueb-stats/stevens>

A few words about AUEB-Stats

- *Long tradition of over 100 years in academia in Greece.*
- *The Department of Statistics was founded in 1989*
- *MSc in Statistics since 1996*
- *Strong Quantitative and Analytics Background*
- *Excellent reputation in (European) Academia and Industry in Greece*
- *Mission: educate leaders with a focus on Analytics and Quantitative methos*
- *Best Stats Department in Greece*

Courses@STEVENS

Core Courses	USCH	Transferable From AUEB
Credits transferred from AUEB	9	Count for certain courses as indicated below
Credits at Stevens		
FA541 Applied Statistics with Applications in Finance	3	YES
FA582 Foundations of Financial Data Science	2	
FE513 Financial Lab: Practical Aspects of Database Design	1	
FE535 Introduction to Financial Risk Management	3	
FA590 Statistical Learning in Finance	3	YES - Cycle 2
FA542 Time Series with Applications to Finance	3	YES – Cycle 3
Elective Courses		
FE610 Stochastic Calculus	3	YES – Cycle 3
Select 2 or 3 courses from STEVENS M.Sc. in Financial Analytics curriculum depending on taking FE610 Stochastic Calculus at AUEB	9	
FE900 Master Thesis	6	
Total Credits at Stevens	21	
Total including transferred credits	30	



Courses@Stevens which can be transferred at AUEB-Stats

- *Applied Statistics with Applications in Finance*
- *Computational Statistics*
- *Statistical Learning in Finance*
- *Time Series*
- *Stochastic Calculus*

Courses@AUEB (Old program)

- *1st Semester*
 - *Probability and Statistical Inference*
 - *Computational Statistics*
 - *Generalized Linear Models*
 - *~~Data Analysis~~ (Transferred from Stevens with Applied Statistics with Applications in Finance)*

Courses@AUEB (Old program)

2nd Semester

- **Cycle 2: Computational Statistics**
 - ~~Statistical Learning~~ (Transferred from Stevens with Statistical Learning in Finance)
 - ~~Statistics for Big Data~~ (Transferred from Stevens with Statistical Learning in Finance)
 - Bayesian Models in Statistics
 - Advanced Stochastic Processes or Topics in Computational Statistics (Applied Stochastic Modeling for 2023-4)
- **Cycle 3: Stochastics**
 - ~~Time Series Analysis~~ (Transferred from Stevens with Time Series)
 - ~~Financial Econometrics~~ (Transferred from Stevens with Time Series)
 - ~~Stochastic Modeling in Finance~~ (Transferred from Stevens with Stochastic Calculus)
 - ~~Topics in Stochastics: Probability Theory~~ (Transferred from Stevens with Stochastic Calculus)

Courses@AUERB

(New program, pending to approval)

2nd Semester

- **Cycle 2: Computational Statistics**
 - ~~Statistical and Machine Learning (Transferred from Stevens with Statistical Learning in Finance)~~
 - *Bayesian Models in Statistics*
 - *Topics in Computational Statistics (Applied Stochastic Modeling for 2023-4) or Data Management*
- **Cycle 3: Stochastics**
 - ~~Financial Analytics (Transferred from Stevens with Time Series)~~
 - ~~Stochastic Modeling in Finance (Transferred from Stevens with Stochastic Calculus)~~
 - ~~Topics in Stochastics: Probability Theory (Transferred from Stevens with Stochastic Calculus)~~
- **Seminars/Short Courses**

Fees

The fees for 2023-2024 are 4000 Euros for the whole program

We are waiting you in

Athens

a city full of life





Thank you for attending