



Faculty of Economic Cybernetics, Statistics and Informatics,
Department of Statistics and Econometrics

# MASTER PROGRAM APPLIED STATISTICS & DATA SCIENCE

**Program Coordinator: Cristina BOBOC** 

**Program Coordinator EMOS: Miruna MAZURENCU-PELE** 

**Logistic Coordinator: Daniela MANEA** 





### THE OBJECTIVE OF THE MASTER PROGRAM

to provide high-quality training for students interested in pursuing data-intensive careers

### HOW?

- by providing a comprehensive body of knowledge and develop relevant skills and abilities in the field of statistics required on the labour market
- by partnerships between academia and business
- by international recognition of diplomas





### **Acquired skills**

- the analysis of databases of various sizes
- the ability to work with a variety of data analysis software packages: R, Python, Geoda, MS Excel, SAS, SPSS, Stata, and data visualization tools: Tableau, QlikView.
- integrating theoretical knowledge with practical experience through internships at prestigious companies
- expanding the horizons of graduates through international exchanges with renowned universities





#### **DATA SCIENCE**

Data Mining and Big Data

Computational Statistics

Machine Learning in Python

Data Vizualisation

Software for Statistics and Data Science

#### **ADVANCED MODELLING**

Advanced Time Series and Forecasting
Stochastic Processes
Advanced Econometrics
Spatial Analysis
Financial Modelling

# & DATA SCIENCE

#### **APPLIED STATISTICS**

Special Techniques in Sampling Theory
Applied Demography
European Statistical System

#### **PRACTICAL ASPECTS**

Statistical Consultance
Ethics and Academic Integrity
Internship





### Participation in International Competitions

- Participation in the "Datathon WiDS Women in Data Science" international competition, held under the aegis of Stanford University in 2022 and 2023.
- In 2023,
  - The **Fantasticians team** made up of *Cristina Boboc, Ana-Maria Oprea, Bianca Conțolencu and Gianina Maria Petrașcu* took **first place at the national level** (44th place out of 708 participating teams at the international level)
  - The **Abraca-data team** made up of *Mihaela Covrig, Bristena Margarit, Diana Chiroșca and Ioana Bîrlan* ranked **second place at the national level** (98th place out of 708 participating teams at the international level)





# Training workshops and summer schools

- Summer School "Advanced data analysis tools applied in the field of sustainable development", Covasna, August 31, 2022 September 3, 2022
  - The workshops brought together guests and participants with expertise in the field of sustainable development and the use of advanced data analysis techniques, such as: Dr. Andrei RĂDULESCU, Banca Transilvania; Col. Conf. univ. dr. Dumitru IANCU, AFT "Nicolae Bălcescu" Sibiu; Professor Dorel PARASCHIV, University Prof. dr. Cătălin DOBREA, Prof. univ. dr. Adela BĂRĂ, Prof. univ. dr. Cristina BOBOC, University Prof. dr. Daniela MANEA, Prof. univ. dr. Mihaela COVRIG, Assoc. Dr. Cristian TEODOR, Lect. univ. dr. Adrian OŢOIU from ASE.
- Applied training workshop "Interactive and innovative educational resources dedicated to the development of students' practical skills in the field of data analysis", Covasna, 06 - 09 September 2023
  - The work sessions brought together participants with expertise in the use of advanced data analysis techniques (Univ. Prof. Dr. Cristina Boboc, Univ. Prof. Dr. Daniela Manea, Univ. Conf. Dr. Mihaela Covrig, Univ. Lect. Dr. Adrian Oţoiu, Univ. Lecturer Dr. Mihai Mihaela) together with master's and doctoral students with skills in the field of Data Science.





### **Admission Outcome Indicators 2021-2023**

- More than 2 candidates on each place
- More than 75% of candidates with 10 at bachelor degree final exam
- More than 25% of candidates with grade between 9,5 şi 10 at admission exam

### **Graduates Outcome Indicators - 1 year after graduation**

- Employability: during the first year of study for more than 70%
- Wage: higher than 6500 RON, for more than 60% of graduates
- Employment position: business analyst, statistician, data engineer, data scientist





### https://asds-csie.ase.ro/

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