

Master Statistics.



Welcome to JKU Linz.

Topics.

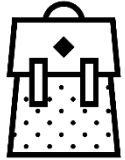
- About JKU Linz.
- About the Master Statistics.
 - Key Facts.
 - Job Opportunities.
 - Subject Areas.
 - Specializations: Study Foci.
- Admission.
- Important Contact Addresses.

About JKU Linz.



Study in the Heart of Europe.

JKU Linz. Facts & Figures.



23,700+
students



~130 professors
at 120 institutes



80+
Academic degree programs, 4
faculties and 3 schools



~ € 497 million
Budget for the
2019–2021 performance
agreement period



3,400 employees



364,000m²
of space



About the Master Statistics.



Key Facts, Job Opportunities, Subject Areas, Specializations: Study Foci.

Key Facts.

- An advanced, interdisciplinary, academic program.
- Focus on core areas of statistical theory, methodology, application, and data analysis.
- Choose from a variety of elective courses.
- Learn to develop new statistical methods and effectively apply these methods to solve problems.
- Engage and collaborate with experts in other fields.
- Pursue occupation in data science as well as various areas of social sciences and economics, life sciences, ecology, and official statistics.

PROGRAM:

Master's Degree
Statistics

ACADEMIC DEGREE:

Master of Science (MSc)

PROGRAM DURATION:

4 semesters

ECTS:

120 credits

PROGRAM LANGUAGE:

English

Job Opportunities.

A wide variety of professional occupations requiring expertise in complex data analysis at:

- Academic and non-academic research institutions.
- Banks and insurance companies.
- Medical and pharmaceutical industries.
- Official statistics agencies.
- Manufacturing industries.
- Marketing and public opinion research agencies.

Subject Areas.

		Semester				ECTS
		1	2	3	4	
Mandatory Subjects	Mathematical Statistics	●	●			24
	Data Analysis		●	●		10
	Statistical Methods	●	●	●		24
	Soft Skills	●				3
Elective Subjects			●	●		18
Free Electives		●	●	●		14
Master's Thesis Seminars				●	●	4
Master's Thesis					●	20
Master's Examination					●	3

Mandatory Subjects 1/2.

- Mathematical Statistics (24 ECTS)
 - Probability Theory (10 ECTS, Lecture & Exercise)
 - Advanced Statistical Inference (10 ECTS, Lecture & Exercise)
 - Stochastic Processes (4 ECTS, Combined Course)
- Data Analysis (10 ECTS)
 - Biostatistics (4 ECTS, Combined Course)
 - Applied Statistics (6 ECTS, Seminar)
- Statistical Methods (24 ECTS)
 - Statistical Concepts (12 ECTS)
 - Statistical Modelling (12 ECTS)
- Soft Skills (3 ECTS)

Mandatory Subjects 2/2.

- Statistical Concepts (12 ECTS)
 - Experimental Design (4 ECTS, Combined Course)
 - Bayes Statistics (4 ECTS, Combined Course)
 - Computational Statistics (4 ECTS , Combined Course)
- Statistical Modelling (12 ECTS)
 - Advanced Regression Analysis (4 ECTS, Combined Course)
 - Statistical Learning (4 ECTS, Combined Course)
 - Survival Analysis (4 ECTS, Combined Course)
- Soft Skills (3 ECTS)

Practical skills and knowledge in, e.g., communication and interaction, ethics and gender studies.

Elective Subjects.

- Statistical Methods in Data Science (0/6 ECTS)
 - Statistical Principles of Data Science (6 ECTS, Combined Course)
- Data Engineering (0/6/12 ECTS)
 - Data Warehousing (6 ECTS, Lecture & Exercise)
 - Machine Learning: Supervised Techniques (3 ECTS, Lecture)
 - Visual Analytics (3 ECTS, Lecture)
- Applied Statistics (0/6/12/18 ECTS)
 - Applied Statistics (6 ECTS, Seminar)
 - Statistical Applications (6 ECTS, Seminar)

Specializations: Study Foci.

- Data Science:
 - In combination with the Computer Science and Information Systems programs.
 - Elective Subjects:
 - Statistical Methods in Data Science (6 ECTS)
 - Data Engineering (12 ECTS)
 - Suitable topic of the Master's Thesis.
- Official Statistics:
 - Requires a project in the area of official statistics (e.g., an internship at a statistical authority).
 - Elective Subjects:
 - Statistical Methods in Data Science (6 ECTS)
 - Applied Statistics (12 ECTS)
 - Suitable topic of the Master's Thesis.

The Master's program may also be completed without a particular focus.

European Master in Official Statistics (EMOS).

- Project of the European Union to develop a program for the education and further training in official statistics in European Master's programs.
- The JKU Master's program "Statistics" is the only study program in Austria with the EMOS label.
- The EMOS label was awarded to 32 study programs in 19 European countries, e.g., University of Southampton, University of Rome "La Sapienza", University of Rennes, University of Trier.
- Requirements to obtain the EMOS certificate:
 - Courses from the JKU Bachelor's program "Statistik und Data Science" and study focus "Official Statistics".
 - Project or internship at a statistical agency (e.g., Statistics Austria, Statistics Upper Austria).
 - Topic of Master's Thesis related to official statistics.



Admission.



Space for Next Steps.

Admission.

Admission requirements are:

- A Bachelor's degree in "Statistik und Data Science" from JKU Linz.

OR

- An undergraduate degree equivalent in content and scope to the "Statistik und Data Science" Bachelor's degree from JKU Linz.

OR

- Prospective students holding an undergraduate degree in a different or related field may apply for admission. These students can be admitted, but may require to complete additional coursework of up to 40 ECTS credits during the program.
- English proficiency at the B2 level.

Important Contact Addresses.



Space for Further Information.

Important Contact Addresses.

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Thank you.



See you at JKU Linz!