University of Messina

Bachelor's Degree in Data Analysis

Scientific coordinator
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Department
*Mathematic's and Computer Science,
Physics and Earth Science*

Duration
3 years

Scan me!

Programme overview

Huge volumes of heterogeneous data are continuously being generated by people and computer systems in the rapidly evolving modern world. This data, commonly referred to as "Big Data", needs to be properly processed.

The Bachelor's Degree in Data Analysis will produce data scientists whose solid technical background is complemented by a multidisciplinary preparation in various fields where Big Data is present. Data scientists are in high demand by Industry 4.0, consulting companies and public institutions. Data scientists are needed to design and implement computer systems able to store, manage and analyse Big Data, as well as provide managers and stakeholders with a clear report of their results so that they can make critical decisions. Furthermore, this degree entitles graduates to participate in engineering licensing exams to work as engineers.

Skills acquired in this programme include:

- design and development of complex and innovative Cloud/Edge/Fog computing and Internet of Things (IoT) systems able to store and manage Big Data;
- experimental design and development of complex Big Data analytics algorithms b a s e d on the most recent Artificial Intelligence (AI) techniques including Machine Learning and Deep Learning;
- capacity of adaption to any inter-disciplinary working environment that requires data Analysis expertise.

Minimal entry requirements

An Italian secondary school diploma or a certified foreign equivalent demonstrating 12 years of study is required.
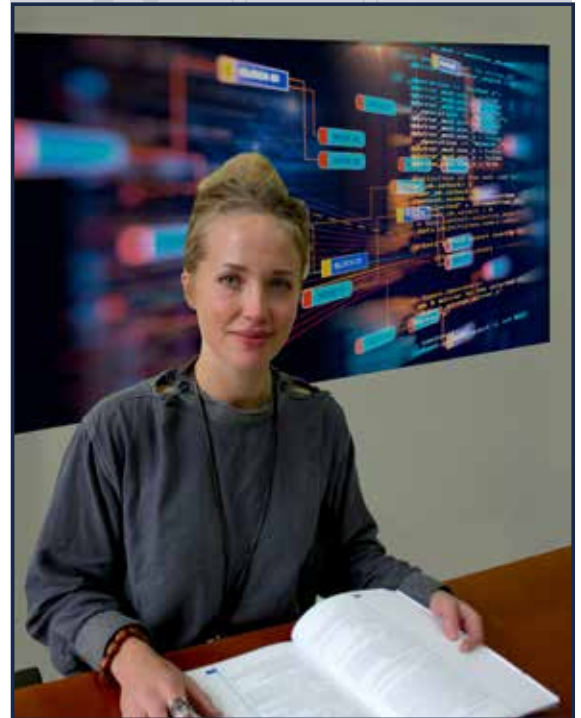
*"This degree programme is preparing me for an important career in Big Data management. I am really excited about my courses.
I will be learning about Artificial Intelligence, like Machine Learning and Deep Learning.
I am really looking forward to learning and developing my skills in the Data Analysis area.
My teachers are excellent and they really challenge us to do our best."*
Vilma Veronica Kaikkonen

Language requirements
International English language certificate issued by an Institution recognized by the Italian Ministry of University and Research (MUR), B2 level of the Common European Framework of Reference.

Study programme
The Bachelor's Degree in Data Analysis belongs to the classification of the Computer Science degree (L-31).

YEAR I
Calculus
Discrete mathematics
Mathematics for data analysis
Physics
Programming
Object-oriented programming
Algorithms and data structures

YEAR II
Computer architecture
Computer networks
Operative systems
Database
Software engineering
Cloud computing
System security
Statistical methods and models

YEAR III
Web programming
Data mining & analytics
Machine learning
Technology and Innovation
Wireless sensor networks
Enterprise internship
Thesis

International opportunities
UniME students have the opportunity to participate in the Erasmus+ Mobility programme both for study and training. Calls are published on the site twice per year. Another opportunity for students is the UniME Funded programme "Students Around the World" (SAW) call for scholarships for study at the extra-European universities in the context of international cooperation agreements. For further information please visit our site.

Tuition fees
A fixed fee (€ 156.00) and a remaining amount of tuition calculated on the basis of a sliding scale. For further information go to https://international.unime.it/study-with-us/tuition-fees/

University of Messina

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