

DATA ANALYTICS

ESMT
BERLIN



Location

Self-paced online program



Tuition fee*

€2,400



Language

English



Duration

4 modules

Start anytime. Finish within 6 months.



Certificate

You receive a certificate upon completion of the program.

Postgraduate Diploma in Management

Each module counts toward 1 of the 18 days necessary to receive the diploma.



esmt.berlin/execed/analytics

Convert data insights into business value

It's no secret that businesses are locked into an analytics arms-race. Organizations that can identify valuable data points and use them to drive decisions have the edge against those that can't.

The senior managers or leaders of any business should be able to:

- Confidently engage with their data science team
- Identify data trends that inform their decisions
- Push for intelligent use of data analytics in their organization to drive growth.

If you want to stay competitive in an ever-more data-driven world, this program will help you achieve your goals.

Who should attend the program?

This program is for senior managers and executives who want their organization to be driven by intelligent use of data analytics. The course is also tailored to company advisors as well as managers who are confronted with specific analytics challenges and expected to produce concrete proposals on how to distill and extract value from data functions.

Key topics

- **Analytics Fundamentals:** Master the basic tools of quantitative analysis
- **Advanced Analytics:** Journey into predictive analytics, focusing on regression and cluster analysis
- **Decision Trees and Risk Analysis:** Learn about decision trees as an advanced tool to address uncertainty in complex, sequential decisions by mapping out, organizing, and analyzing decision paths and chance events
- **Machine Learning and Artificial Intelligence:** Find out how machine learning can enhance, automate, and scale business decision-making processes

Teaching methods

Individual coaching

E-learning sessions

Business cases

Online networking events

Video tutorials

Individual exercises

Executive keynotes with practitioners

Module 1 – Analytics Fundamentals

- Risk, uncertainty, and errors
- Data as a guide to the unknown
- Descriptive analytics: key indicators
- Predictive analytics: model-building

Module 2 – Advanced Analytics

- Knowing your customers: segmentation models
- Keeping your customers (happy): churn models
- From predictive to prescriptive analytics

Module 3 – Decision Trees and Risk Analysis

- Decision trees and decision making under uncertainty
- Sensitivity analysis and risk profile
- Basics of Monte Carlo simulation
- Entropy and information gains

Module 4 – Machine Learning and Artificial Intelligence

- Fundamentals of machine learning
- Random forests and neural networks
- Preparing high-quality data and optimizing models

Key benefits

- ✔ Learn how to lead analytics experts in your company
- ✔ Learn how to use key tools for quantitative analysis
- ✔ Acquire the skills to interpret data and extract actionable insights
- ✔ Understand how machine learning can power new insights and automate decision making

*For general terms and conditions and details on the application process, please go to: esmt.berlin/execed/gtc



Catalina Stefanescu-Cuntze

Faculty

Catalina Stefanescu-Cuntze

is a professor of management science at ESMT Berlin. Her research focus lies in the design, analysis, and application of statistical models for managerial decision making.

Jens Weinmann

is a program director at ESMT Berlin. His research focus lies in the analysis of decision making in regulation, competition policy, and innovation.

Contact

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Data are just summaries of thousands of stories – tell a few of those stories to help make the data meaningful.

Chip & Dan Heath,
Authors of *Made to Stick*, *Switch*

Without big data analytics, companies are blind and deaf, wandering out onto the Web like deer on a freeway.

Geoffrey Moore,
Author of *Crossing the Chasm* & *Inside the Tornado*