



УНИВЕРЗИТЕТ У
НОВОМ САДУ

ЕКОНОМСКИ ФАКУЛТЕТ
У СУБОТИЦИ



DOCUMENTS FOR ACCREDITATION OF SECOND LEVEL STUDY PROGRAM
OF HIGHER EDUCATION – MASTER ACADEMIC STUDIES

Advanced Data Analytics in Business

Standard 6. Quality, contemporaneity and international compatibility of study program

Annex 6.4 Recommendations and compatibility with correspondent good practice at European HEIs

Study program of master academic studies is according to its program structure, course contents, teaching methodology, content and requested quality of home and seminar works, assessment methodology and system of ECTS points in line with procedures applied in European higher educational institutions.

As an example we are citing the following institutions:

MSc Business Analytics, Imperial College Business School, United Kingdom:
<https://www.imperial.ac.uk/business-school/programmes/msc-business-analytics/>

Core modules

Analytics in Business
Data Structures and Algorithms
Fundamentals of Database Technologies
Machine Learning
Maths and Statistics Foundations for Analytics
Network Analytics
Optimisation and Decision Models
Statistics and Econometrics
Visualisation

Electives

Advanced Machine Learning
Data Management and Ethics
Digital Marketing Analytics
Energy Analytics
Financial Analytics
Healthcare and Medical Analytics
Logistics and Supply-Chain Analytics
Retail and Marketing Analytics
Workforce Analytics
Service Analytics



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MBA Big Data & Business Analytics Programme, University of Amsterdam – Amsterdam Business School, Holland: <http://abs.uva.nl/content/executive-master/mba-big-data--business-analytics/programme>

Analytics courses

Primer Statistics (online)

Statistics

Econometrics

System Optimisation

Data Stewardship

Quantitative Marketing

Business courses

Big Data Strategy & Implementation

Amsterdam Leadership Programme

Consumer Behaviour

Law & Ethics for Big Data

Operations & Supply Chain Management

Financial Accounting

Fintech: Blockchain, Cryptocurrencies & Smart Contracts

Leading People Strategically

Finance

Entrepreneurship Hackathon

International Study Trip

Digital Transformations

MBA Big Data Thesis Project

Computer Science Courses

Coding Lab

Big Data Infrastructures & Technology

Machine Learning

Language Technology

Deep Learning

Business Analytics – MSc, University of Kent, United Kingdom:

https://www.kent.ac.uk/courses/postgraduate/292/business-analytics?utm_source=BisAnalytics&utm_campaign=KBS%7CMastersPortal&utm_medium=Web+Page#structure

Compulsory modules

Machine Learning and Forecasting

Consultancy, Negotiations and Research Skills

Big Data Analytics and Visualisation

Advanced Spreadsheets and Decision Support Systems

Simulation Modelling

Business Statistics with R



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Prescriptive Analytics for Decision Making
Optional modules
Logistics and Supply Chain Planning
Operations Management and Digital Transformation
Integrated Marketing Communications
Project Management
Supply Chain Finance and Blockchain Technology
Corporate Finance
Foundations of Finance
Warehousing and Global Transportation Management
Buyer Decision Making
Applied Marketing Research
Marketing Across Cultures

Master in Business Analytics and Big Data, St Petersburg University, Russia:

<http://english.spbu.ru/education-at-spbu/graduate/master-in-english/90-program-master/1571-master-in-business-analytics-and-big-data-miba-english>

Main courses

Statistical Data Analysis in Python
Machine learning
Processing of natural language and images
Introduction to Sectoral Analysis
Marketing analytics
Project Management
Contemporary strategic analysis
Managerial Economics
Design thinking
Knowledge Management
Enterprise architecture
Digital business
Data Mining and Visualisation
Technology Entrepreneurship
Marketing of Innovative Products

Advanced Analytics - Big Data, M.A., Warsaw School of Economics, Poland:

<http://oferta.sgh.waw.pl/en/master/programmes-en/aa/Strony/default.aspx>

Compulsory courses

BusinessLaw
History of Economic Thought
Advanced Business Analytics – Power of Predictive Modeling
Approximation Approaches - from Fourier Analysis to Deep Learning
Advanced Macroeconomics I
Advanced Optimization Methods



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Basic and Advanced Programming in SAS with Statistics

Big Data

Cloud Computing

Data Mining

Databases Build and Exploitation

Institutional Economics or Labour Economics

Logistic Regression with SAS

Querrying, Data Presentation, Data Visualisation and Reporting

Real-Time Analytics

Statistical Learning Methods

Elective courses

Advanced Simulation Modelling

Algebra and Mathematical Analysis

Applied Econometrics

Artificial Intelligence

Bayesian Econometrics

Business Intelligence

Credit Scoring and SAS Macro-programming

Database Systems II

Development of Business Applications

Econometrics of Panel Data

Event History Analysis with SAS

Financial Econometrics II

Mathematical Logic

Mathematical Statistics I

Microeconometrics

Modern Econometric Theory

Nonlinear Econometric Models

Numerical Methods

Probability Theory and Stochastic Processes

Python Programming

Selected Challenges of the Contemporary World II (economy, politics, culture, society, sustainable development) – Lectures of Visiting Professor

Spatial Econometrics

Theory of Decision I

Time Series Econometrics

Outside EHEA:

Master of Business Analytics, Massachusetts Institute of Technology, USA:

<http://mitsloan.mit.edu/master-of-business-analytics/>

Main courses

Analytics Edge

Optimization Methods



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Analytics Lab: Action Learning Seminar on Analytics, Machine Learning, and the Digital Economy

From Analytics to Action

Analytics Capstone Project

Communicating with Data

SSIM Ethics & Data Privacy

Introduction to Deep Learning

Elective courses

Logistical and Transportation Planning Methods

Nonlinear Optimization

Robust Modeling, Optimization, and Computation

Media Ventures

Linked Data Ventures

Investment Management

Analytics of Finance

Algorithmic Trading and Quantitative Investment Strategies

Enterprise Transformations in the Digital Economy

Introduction to Operations Management

Supply Chain Planning

Manufacturing System and Supply Chain Design

The Theory of Operations Management

Marketing Management

Product Management

SSIM: Marketing Analytics

Consumer Behavior

Introduction to System Dynamics

Innovation Strategy

SSIM: Strategies for People Analytics

Network Science and Models

Topics on Algorithmic Game Theory and Data Science

Applied Machine Learning

Matrix Methods in Data Analytics, Signal Processing and Machine Learning