Study Plan
M.Sc. Computer Science
Specialization: Business Intelligence Systems Development

Faculty of Mathematics and Information Science

Study plan for reference only; may be subject to change.

Lc: Lecture T: Tutorials L: Laboratories P: Project

Summer semester (1st or 2nd)

Course title	ECTS	Lc	T	L	P	h/sem
Elective 1	4	0	0	0	0	45
Elective 2	4	0	0	0	0	45
Elements of modern physics	4	2	1	0	0	45
High performance computing	3	2	0	2	0	60
Humanities seminar	3	0	2	0	0	30
Advances in computer statistics	4	2	0	2	0	60
Enterprise data management	4	1	0	2	0	45
Introduction to SAS system	4	2	0	2	0	60

Winter semester (1st or 2nd)

Course title	ECTS	Lc	T	L	P	h/sem
Advanced algorithms	4	2	0	0	1	45
Advanced topics in mathematics (elective block)	4	0	0	0	0	45
Software testing	4	1	1	1	0	45
Humanities	2	0	0	0	0	30
Physical education and sports	0	0	2	0	0	30
Business analytics programming		4	2	0	0	2 60
Data mining - advances		4	2	0	1	0 45
Business intelligence and web applications		3	1	0	2	0 45
Computational intelligence in business applications		3	1	0	0	2 45
Diploma seminar 1 (sem.2)		2	0	2	0	0 30

3rd semester (winter or summer)

Course title	ECTS	Lc	T	L	P	h/sem
Master thesis preparation	16	0	0	0	0	0
Elective 3	4	0	0	0	0	45
Elective 4	4	0	0	0	0	45
Elective 5	4	0	0	0	0	45
Diploma seminar 2 (sem.3)	2	0	2	0	0	30

Elective courses:

Social and Professional Aspects in Computer Science

Advanced Data Structures in the C++ Language

Analysis and Processing of Biometric Images

Android Application Development

Data Mining

Decision Support Systems

Differential and Difference Equations

Discrete Random Processes. Analysis and Simulation.

Distributed Operating Systems

Enterprise Applications in .NET Framework

Introduction to Bioinformatics

Introduction to Image Processing and Computer Vision

Introduction to Management

Nonlinear Systems and Graphic Applications

Parallel Processing

Prolog - Logic Programming and Applications in AI

Semantic Data Processing
Web Applications Development

From Finite Element Method to Signal Analysis

Agent Systems and Applications

Agent-semantic Systems and Applications

Applied Topology

Computer Forensics

Cryptography and Data Security

Fractals

Graphic Processors in Computational Applications

Human Recognition by Biometric Methods

Information Retrieval and Text Mining

Machine Learning Workshop

Network Operating Systems
Oracle Database Administration