

Course unit code	116404 - UISINF
Course unit title	Management Information Systems

GENERAL INFORMATION			
Study program	Undergraduate study program: Information Science	Year	3.
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Course status	X	Mandatory	Elective
Credits allocated and type of lectures			
		Winter semester	Summer semester
ECTS students workload			5 ECTS
Number of hours per semester			60

Course objectives, teaching and learning methods and learning outcomes

After gain basic knowledge about modern information systems (business intelligence systems), students introduce to software solutions offered by technology: data warehouse, OLAP, data mining, decision support and knowledge-based systems.

Learning outcomes are:

1. Get basic theoretical knowledge about decision making and managerial processes,
2. Acquire and implement skills of creating various report from the database,
3. Use the OLAP capabilities of standard applications,
4. Select and use specific tools for supporting decision-making and problem solving processes.

Requirements, correspondence and correlativity

Requirements: Statistics, Database

Course content (list of topics)

- Decision making, systems, modeling and supporting process of decision making
- Information systems, taxonomy
- Data management, data warehouse, OLAP and knowledge discovery
- Decision support systems
- Basic ideas of artificial intelligence
- Expert systems
- Problem solving concepts in artificial intelligence
- Knowledge representation
- Knowledge engineering
- Expert systems shells
- Expert systems applications
- Neural network, genetic algorithms, fuzzy logic, machine learning in business applications
- Application integration and future trends.

Modes of instruction and acquiring knowledge (mark in bold)

Lectures	Seminars and workshops	Exercises	Individual tasks	Multimedia and internet
Distance learning	Counseling	Laboratory	Tutorial	Fieldwork

Student requirements

Students are required to attend lectures, seminars and exercises in order to acquire knowledge and skills for using various tools and software solutions in support management processes and decision-making. The final grade formed through continuous verification of the knowledge and skills using specific software tools for different managerial situation.

Assessment and evaluation of students (mark in bold)

Attendance	Class participation	Seminar paper	Experimental work
Written exam	Oral exam	Essay	Research
Project	Continuous assessment	Report	Practical work

Assessment breakdown within the European credit transfer system

REQUIREMENTS	HOURS (estimation)	LEARNING OUTCOMES	SHARE IN ECTS	SHARE IN GRADE
Test 1	30	2	1,25	25%
Test 2	30	2 - 3	1,25	25%
Workshop	60	4	1,5	35%
Oral exam (Cmap)	30	1	1	15%

Assessment breakdown within the European credit transfer system

Tests are performing on e-learning platform and has maximal 25 points. Minimal passing score is 13. Workshops related to work in MS PowerPivot and Weka software environment. Oral exam related on explanation student`s made conceptual map made in Cmap software tools.

Bibliography**Mandatory bibliography**

Turban&Aronson&Liang&Sharda: "Decision Support and Business Intelligence Systems", Pearson International Edition, 2007.

Turban& Leider& McLean&Wetherbe: "Information Technology for Management", John Wiley & Sons, 2007

Additional bibliography

Luger: "Artificial Intelligence, Structures and Strategies for complex problem solving", Addison Wesley, 2005

Han& Kamber: Data Mining- Concepts and Techniques, Maorgan Kaufman, 2006.

Turban,E.; Aronson,J.E. : "Decision Support Systems and Intelligent systems", New Jersey, Prentice Hall, 1998

Dhar,V.; Stein,R.: "Seven Methods For Transforming Corporate Data to Business Intelligence", Prentice Hall, 1997.

Additional information on the course