

Information Systems Management

Faculty of Informatics and Statistics
University of Economics, Prague, Czech Republic

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Academic Guarantor: doc. Ing. Vlasta Svatá, CSc.

INFORMATION SYSTEMS MANAGEMENT

The main aim of the Information Systems Management (ISM) Master's Programme is to prepare specialists that are capable to develop and manage information technology either in business companies or the public sector. Thanks to its interdisciplinary approach, ISM programme provides its students with a combination of IT-related knowledge and management skills.

ISM graduates will have gained knowledge especially but not only in the fields of information management, enterprise informatics management, project management, business process optimization, information systems audit, data mining and retrieval.

The current global labour market requires and highly appreciates not only specialists in the field of information systems and technology, but in the same time they should be knowledgeable in other economic disciplines. This kind of knowledge is achieved mainly through the minor specialization (e.g. International Business Strategies).

Combination of IT, management and economic knowledge and skills enables graduates to overcome the traditional gap between IT specialists and business users and thus to make easier communication between each other. This can be a big advantage in finding a job after graduation.

It is expected, that the graduates will operate mainly in multinational companies supplying information technology services and other companies highly dependent on the use of information technology. Typically ISM graduates will be prepared to successfully perform in positions such as IT manager, project manager, IS auditor, knowledge engineer, business analyst or consultant.

Information Systems Management	ECTS	Semester			
		1.	2.	3.	4.
Compulsory courses	48	24	18	6	
Elective courses	27	6		6	15
Minor specialization	30		12	18	
State exams and thesis defence	15				15
Total sum	120	30	30	30	30

Compulsory courses	Code	ECTS	Semester			
			1.	2.	3.	4.
Information Technologies in Entrepreneurship	4IT487	6	●			
ICT Project Management	4IT524	6	●			
Information Systems Audit	4SA613	6	●			
Knowledge Discovery in Databases	4IZ451	6	●			
Information Modelling of Organizations	4IT525	6		●		
Information Management	4SA615	6		●		
Management of Enterprise IT	4IT528	6		●		
Diploma Seminar	4SA618	6			●	

Elective courses	Code	ECTS
Business and Competitive Intelligence	4IT555	6
Business Process Engineering	4IT531	6
Cloud Computing: Principles and Technology	4IT482	3
Czech for Foreigners	4SA628	4
Data Science in Python and R	4IZ565	6
Economic Demography I	4DM465	3
Economic Statistics	4ES611	6
Information Management Trends I	4SA430	4
Information Management Trends II	4SA530	4
Introduction to Data Analysis with R and SQL	4ST604	3
Information Systems Management	4SA431	3
IS/ICT Trends II	4IT471	3
Modern Change Management	4SA553	3
Modern Risk Management	4SA551	3
Multiple Criteria Decision Making	4EK606	6
New Media and Social Network Services	4SA526	3
Presentation Skills	4ME378	3
Probability and Mathematical Statistics I	4ST621	6
Project Management	4EK603	3
Product Management	3PO642	6
Simulation of Systems	4IT496	6
SW Process Improvement	4IT521	6
Time Series	4ST631	6
International Week courses		3



MINOR SPECIALIZATION

At VŠE every master student has the right and obligation to get a certain portion of the total number of credits needed to complete the whole master programme by taking one minor specialization. Studying a minor gives you the opportunity to deepen your knowledge and skills in a field that is of your interest or to broaden your horizons by discovering a whole new area of study.

The ISM students will have the possibility to choose their minor from the offer below:

Minor Specialization	Offered by (faculty/department)	Compulsory courses	Elective courses	Final state exam
4EA: Economic Data Analysis	Faculty of Informatics and Statistics (FIS): Department of Economic Statistics	3 courses: 18 ECTS	choose from list: min. 12 ECTS	4EA: 3 ECTS
4IM: Insurance Mathematics	Faculty of Informatics and Statistics (FIS): Department of Statistics and Probability (KSTP)	3 courses: 18 ECTS	choose from list: min. 12 ECTS	4IM: 3 ECTS
3CE: Consulting	Faculty of Business Administration (FBA/FPH): Department of Strategy	3 courses: 18 ECTS	choose from list: min. 12 ECTS	3CE: 3 ECTS
3ME: Marketing	Faculty of Business Administration (FBA/FPH): Department of Marketing	4 courses: 18 ECTS	choose from list: min. 12 ECTS	3ME: 3 ECTS

ECONOMIC DATA ANALYSIS

This minor specialization helps students to understand the substance of key economic indicators. They will be able to apply elementary statistical and econometric methods on economic data and use elementary statistical and econometric software.

Compulsory courses	Code	ECTS	Semester		
			1.	2.	3.
Economic Statistics	4ES611	6		●	
Introductory Econometrics	4EK610	6		●	
Statistics 1	4ST601	6			●

Elective courses	Code	ECTS
Applied Economic Statistics	4ES640	3
Applied Statistics	4ST640	3

Demography I	4DM251	4
Demography II	4DM452	3
Introduction to Data Analysis with R and SQL	4ST604	3
Official Statistics	4ES612	3
Operations Research	4EK601	3
Probability and Mathematical Statistics I	4ST621	6
Project Management	4EK603	3
Selected Topics in Econometrics and Operations Research	4EK611	3
Understanding Economic and Social Indicators	4ES526	3

INSURANCE MATHEMATICS

The specialization covers statistical and probabilistic models applied in the field of insurance. It is a combination of theory, methodology and applications. Many examples and study cases are based on real data. The specialization covers tasks from both life and non-life insurance.

Compulsory courses	Code	ECTS	Semester		
			1.	2.	3.
Probabilistic and Statistical Methods in non-life Insurance	4ST625	6		●	
Probability and Mathematical Statistics 2	4ST630	6		●	
Mathematical and Probabilistic Methods in life Insurance	4ST624	6		●	

Elective courses	Code	ECTS
Games and Decisions	4EK602	3
Introduction to Data Analysis with R and SQL	4ST604	3
Statistics with R	4ST605	3
Stochastic Processes and Risk in Finance and Insurance	4ST644	6

CONSULTING

The aim of minor specialization Consulting is the development of strategic and creative thinking as the key aspect of successful managing business growth and performance.

Compulsory courses	Code	ECTS	Semester		
			1.	2.	3.
Growth Strategies	3SG712	6		●	
Design Thinking and Anthropology in Strategy	3SG556	6		●	
Competitive and Business Intelligence	4IT555	6			●

Elective courses	Code	ECTS
Applied Multivariate Statistics	4ST611	6
Scenario Planning for the Strategic Management	3SG457	6
Family Business Governance	3SG836	6
Family Business Strategies	3SG557	6
Strategy and Succession in Family Businesses	3SG835	6
Use MS Excel in Business Practice	4IT522	3
Critical Thinking in Futurology	3SG417	3

MARKETING

The minor specialization Marketing offers students a professional preparation program for managerial positions in marketing (brand manager, product manager, marketing manager, etc.) across the entire spectrum of industries from consumer goods through services, B2B, and others.

Compulsory courses	Code	ECTS	Semester		
			1.	2.	3.
Marketing Research	3MG532	6		●	
B2B Marketing	3MG633	3		●	
Shopper Marketing	3MG640	3		●	
Digital Marketing	3MG736	6			●

Elective courses	Code	ECTS
Luxury Marketing	2MO440	3
Strategic Marketing in Simulations	3MG641	3
Use MS Excel in Business Practice	4IT522	3
International Marketing Communications	2MO506	6
Applied Multivariate Statistics	4ST611	6

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