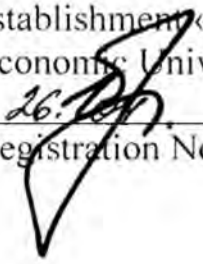


Educational establishment
«Belarus State Economic University»

APPROVED

Rector of Educational
establishment «Belarus State
Economic University»


26.09.17 V.N. Shimov
Registration No UD 3106-17 / st.

MANAGEMENT INFORMATION SYSTEMS

Syllabus for Master's program
1-26 81 01 «Business Administration»

This syllabus for master program in English is developed on the base of syllabus №UD 2863-16/st., approved 31.10.2016.

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(minutes № 4 on «16» 02 2017);

The scientific-methodical Council of the educational establishment «Belarus State Economic University»

(minutes № 4 on «19» 04 2017)

EXPLANATORY NOTE

The purpose of educational discipline «Management information systems» (MIS) is to study information technologies and training of master students to use them as a tool of the scientific and practical tasks solving in its subject area.

Tasks of educational discipline «Management information systems» are:

- getting of the knowledge about information technologies and their application for solving of the problems in economics and management;
- mastering of the theoretical foundations about management information systems;
- studying of dataflow at the enterprise;
- getting of the knowledge about development trends in information technologies, information society and the digital economy.

Master should have the following academic competencies, should be able:

- AC-1.To apply basic scientific and theoretical knowledge to solve theoretical and practical problems.
- AC-2.To use system and comparative analysis.
- AC-3.To use research skills.
- AC-4.To work independently.
- AC-5.To generate new ideas (have creativity).
- AC-6.To use interdisciplinary approach for problems solving.
- AC-7.To use the skills related to technical devices exploitation, information management, and work with computer.
- AC-8. To use verbal and written communication skills.
- AC-9. To learn, improve their skills throughout life.

Master should have the following socio-personal competencies, should be able:

- SPC-2. To social interaction.
- SPC-3. To interpersonal communication.
- SPC-6. To work in a team.

Master should have the following professional competencies, should be able:

- PC-4. Independently acquire new knowledge and skills by using information technologies and use them in practical activities, including new knowledge areas not directly related to the activity.

As a result of studying discipline «Management information systems» master student must:

to know:

- the essence and destination of information technologies and their impact on the business of the networked economy;
- tool methods of data processing and analysis;
- basic concepts of business process reengineering;
- principles of business process modeling, including CASE-technologies;
- tricks in the Internet and Intranet networks;

- network technologies used in specific subject areas;
- principles, methods and tools of information security in computer systems and networks.

be able to:

- determine the level and quality of a specific management information system;
- prepare proposals for the development of the information system of the enterprise;
- conduct business-analysis using modern computer statistical software packages;
- improve knowledge by means of e-learning tools and methods;
- use knowledge management in practice;
- evaluate the effectiveness and quality of software products that are used in the enterprise;
- apply business process modeling methods based on the use of information technology (including CASE software);
- analyze business processes, simplifying them and redevelop (business reengineering);

possess:

- skills in business analysis, using the latest computer statistical software packages;
- business process modeling methods based on the use of information technology (including CASE software);
- methods of business process reengineering.

Educational technologies include studying of the principles of managerial information processing by means of special software.

Independent work includes studying of the theoretical material on the base of references in this syllabus.

Studying of the educational discipline «Management information systems» is necessary for master students for successful learning of the educational discipline «Econometrics», and also for preparing of the master thesis.

Educational discipline consists of 128 academic hours, including:

- for full-time form of education – 40 classroom hours, among them 10 hours – lectures, 30 hours – laboratory classes;
- for correspondence form of education – 20 classroom hours, among them 6 hours – lectures, 14 hours – laboratory classes;

Form of the current control is exam.

THE CONTENT OF EDUCATIONAL MATERIAL

Topic 1. Information society and the digital economy

Basic concepts of the information society. Stages of the information society development. The distinctive features of the information society.

The concept of information and information resources. Information as an economic category. An informational product, its main features in the information society. Types of information products. Information services. Area and sector information market (business information, information for professionals, mass information). The basic concepts of the digital economy. Components of the digital economy. Characteristics of the digital economy. Information technologies and digital economy. The impact of modern information technologies on economic subjects. Changing of the approaches to enterprise management. Changing of business models of industrial enterprises in the information society (Industry 4.0).

Topic 2. Status and trend of management information technologies development

The concept of information technology. Stages of information technologies development. Information technologies classification. Economic laws of information technologies development (Moore's law, Metcalfe's law, the law of the photon). Network information technologies. Technology of integrated information systems for general purpose: GIS-technology, distributed processing, data warehousing, e-workflow, organization of group work and the Internet/intranet/extranet. Management information systems: technology of ERP-systems construction, expert systems and decision support systems, data mining, CASE-technologies.

Topic 3. Information systems in economy

The concept of information systems (IS). Stages of IS development. IS classification. IS structure. Information-controlling structure of the production plant, the types of production processes. IS in the production sphere: automatic process control systems, automated production control systems, control systems of financial and economic activity of the enterprise, analytical data processing.

IS in the non-productive sector.

Topic 4. Management information systems

Basic concepts of control systems. ERP-systems: architecture, requirements and design principles. Functional and service ERP-subsystems. Interaction between subsystems of the ERP and their characteristics. Influence of management information systems for the reorganization of the company.

Organizational management information systems.

Information systems of staff management.

Information technologies of project management.

Business processes reengineering. The role of information technology in reengineering.

EDUCATIONAL-METHODICAL DISCIPLINE MAP
«MANAGEMENT INFORMATION SYSTEMS»
FOR FULL-TIME FORM OF MASTER EDUCATION

The number of the partition, theme	The title of the partition, theme	The number of classroom hours					Otherwise *	Form of the knowledge control	
		Lectures	Workshops	Seminars	Laboratory classes	The number of control independent work hours			
						Lectures			Labs
1	Information society and the digital economy	2			4			[1, 4, 6]	
2	Status and trend of management information technologies development	2			4			[1-4]	Control task on the computer
3	Information systems in economy	4			14			[1-7]	Control task on the computer
4	Management information systems	2			8			[4, 7, 8]	Control task on the computer
	Total hours	10			30				Exam

* References should be included in the partition Otherwise.

EDUCATIONAL-METHODICAL DISCIPLINE MAP
«MANAGEMENT INFORMATION SYSTEMS»
FOR CORRESPONDING FORM OF MASTER EDUCATION

The number of the partition, theme	The title of the partition, theme	The number of classroom hours					The number of control independent work hours	Otherwise *	Form of the knowledge control	
		Lectures	Workshops	Seminars	Laboratory classes					
						Lectures				Labs
1	Information society and the digital economy	1,5			2			[1, 4, 6]		
2	Status and trend of management information technologies development	1,5			2			[1-4]	Control task on the computer	
3	Information systems in economy	1,5			4			[1-7]	Control task on the computer	
4	Management information systems	1,5			6			[4, 7, 8]	Control task on the computer	
	Total hours	10			30				Exam	

* References should be included in the partition Otherwise.

INFORMATIONAL AND METHODOLOGICAL PART

Methodical recommendations on the organization of master students independent work in academic discipline « Management information systems»

An important stage in the studying of the educational discipline is independent work of master students. Budget of the time for independent work is recommended as, on average, 1-2,5 to 2-hour classroom lesson.

The main directions of the master student independent working are:

- initially detailed acquaintance with the program of the educational discipline;
- acquaintance with the list of recommended literature for the educational discipline as a whole and on the topics, studying of the necessary literature on the subject, selection of additional literature;
- studying and extension of lecture material through literature and consultations;
- preparation for laboratory works on the specially designed plans with studying of the basic and additional literature;
- preparation for the implementation of diagnostic monitoring forms (control tasks on the computer);
- preparation to the exam.

References


Basic:

- 1 Laudon, K.C. Management Information Systems: Managing the Digital Firm (15th Edition) / K.C. Laudon, J. P. Laudon. – Publisher: Pearson, 2017. – 648 p.
- 2 Kelly Rainer, R. Management Information Systems (4th Edition) / R. Kelly Rainer. – Publisher: Wiley, 2016. – 528 p.
- 3 Sousa, K.J. Management Information Systems (7th Edition) / Ken J. Sousa, E. Oz. – Publisher: Course Technology, 2014. – 560 p.
- 4 Железко, Б.А. Информационные технологии в управлении: ЭУМК [Электронный ресурс] / Б.А. Железко. – Режим доступа: <http://edoc.bseu.by:8080/handle/edoc/22981>. – Дата доступа: 1.02.2017.

Additional:

- 5 O'Brien, J. Management Information Systems (10th Edition) / J. O'Brien, G. Marakas. – Publisher: McGraw-Hill Education Hardcover, 2010. – 712 p.
- 6 Haag, S. Management Information Systems for the Information Age (9th Edition) / S.Haag, M. Cummings. – Publisher: McGraw-Hill Education, 2012. – 608 p.
- 7 Baltzan, P. Business Driven Information Systems (5th Edition) / P. Baltzan, A. Phillips. – Publisher: McGraw-Hill Education, 2015. – 512 p.
- 8 Pearlson, K.E. Managing and Using Information System (5th Edition) / K.E. Pearlson, C.S. Saunders. – Publisher: Wiley, 2012. – 416 p.

MINUTES OF SYLLABUS ENDORSEMENT

Title of the academic discipline with the current discipline should be endorse	Department	Suggestions of changes in the syllabus content	Decision of the department (with the number and date of the minutes)
Project management	Cross-cultural economic communication	No	Minutes № <u>9</u> on "28". <u>03</u> .2017 

Syllabus additions and changes
in ____/____ academic year

№	Additions and changes	Reason

Syllabus is re-considered and approved on the meeting of the department of economic informatics
(minutes № ____ on _____ 20__)

Head of the department
PhD, docent _____

B.A. Zhalezka

APPROVE
Director of the Institute
of Masters Studying
PhD, docent _____

M.V. Samoilov