

**THE MINISTRY OF AGRICULTURE AND THE FOODSTUFFS OF
BELARUS**

**Educational establishment
«The Grodno state agrarian university»**

APPROVED

The rector

_____ **V.K.Pestis**

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Registration № Ud - _____

INFORMATION MANAGEMENT

**The curriculum of higher education institutions
on a subject matter for the specialty
1-26 02 02-07 "Management (direction-information)"**

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COMPILED BY:

E.V. Snopko, the senior lecturer of the department computer science and economic and mathematical modeling in the agricultural sector, EE «Grodno state agrarian university»

E.A. Suchanova, the senior lecturer of the department of computer science and economic-mathematical modeling in agriculture chair, EE «Grodno state agrarian university»

RECOMMENDED FOR APPROVAL:

Department of computer science and economics and mathematical modeling in the agricultural sector

(protocol № 15 on 24.05.2019);

Methodical council of educational establishment "Grodno state agrarian university"

(protocol № on _____._____._____.)

Responsible for editorial E.V. Snopko, E. A. Suchanova

Responsible for release T.V. Snopko

EXPLANATORY NOTE

An urgency of studying of discipline

Nowadays information is one of the basic strategic resources of a society, and first of all – in economy. The role of the division providing the information environment of the enterprise or the organization is extremely important. Service of information systems is deeply integrated into industrial activity and is a business integral part as in business operation each step, called to provide effective functioning of the subject of managing grows out of decision-making on the basis of the prepared information. Thus, there is a necessity of formation of strategy in the field of information technologies of conducting specialized, information management.

Moreover, in comparison with the countries where there is a developed market economy, in BELARUS process of introduction of information systems in practice occupies short enough time interval. For this reason, mastering by knowledge on information management is a necessary condition of preparation of experts in the field of economy.

The given subject enters into section «Cycle of special disciplines» of the curriculum on a specialty 1-26 02 02-07 «Management (direction-information)».

Discipline development is based on competences, got earlier students at studying of information technologies at school.

The purpose and subject matter problems

The purpose of teaching of discipline – formation at students of base knowledge of information management as about the major making control systems of the enterprise, based on information resources, information-telecommunication technologies both the automated control systems and the powerful tool of transformation of activity of the enterprise according to requirements of modern business.

Problems of studying of discipline are preparation of students for planning, creation and use of information resources and the automated systems for information of the enterprises, use of Internet resources, information resources of state bodies.

Requirements to level of development of the maintenance of a subject matter

As a result of studying of discipline the student should fix and develop following academic (AC) and socially-personal (SLP) the competence.

AC-1. To be able to apply base scientific-theoretical knowledge to the decision of theoretical and practical professional problems;

AC-2. To own the comparative analysis;

AC-3. To be able to work independently;

AC-4. To own to interdisciplinary approaches for the decision of problems;

AC-5. To have skills, at work with computer techniques;

SLP-1. To possess ability to interpersonal communications;

SLP-2. To be able to work in collective.

As a result of studying of discipline the student should possess following professional competences (PC).

PC 1. To plan working out and modernization of information systems;

PC 2. To own means of automation of planning of systems and managements of projects;

PC 3. To own a technical infrastructure of the automated control systems;

PC 4. To own Internet technologies for electronic commerce;

PC 5. To apply functionality of CIS at the decision of economic and administrative problems.

PC 6. To work with the scientific literature.

For acquisition professional competences PC 1 – PC 6 as a result of studying of discipline the student should know:

- The basic concepts of information management;
- The basic standards of management of the organisation (enterprise);
- Classification of information systems;
- Marketing of information systems;
- Information control systems of efficiency of business;
- Management methods information systems;
- Management methods projects of development of information systems;
- To be able and be capable:
 - To define a direction of information of the organization (enterprise);
 - To define requirements for information projects;
 - To estimate level of a maturity of business processes and to apply corresponding methods of information;
 - To choose information systems in the market for problems of management of the concrete organization (enterprise);
 - To operate information resources and information systems;
 - To organize work of services of information in the organization (at the enterprise) to solve the problems connected with financial, material and personnel maintenance of an information work;
 - To organize performance of projects of development of information systems

Structure of the maintenance of a subject matter

The discipline maintenance is presented in the form of themes which are characterized by rather independent integrated didactic units of the maintenance of training. The maintenance that leans on got earlier students of the competence at studying of information technologies at school.

Methods (technologies) of training

The basic methods (technologies) of training answering to the purposes of training of discipline, are:

- Elements of problem training (a problem statement, a variable statement, a partially-search method), realized on lecture employment;
- Elements of study-research activity, realization of the creative approach, realized during passage of practical works.

The organization of independent work of students

At discipline studying following forms of independent work are used:

- Controllable independent work (PIW) on studying of information management during carrying out of a practical training under the control of the teacher according to the schedule;

- Operated independent work, including in the form of performance of individual tasks with consultations of the teacher;
- Preparation of abstracts and practical tasks on individual themes.

Diagnostics of the competence of the student

The estimation of educational achievements of the student at examination is spent on a ten-mark scale. For an estimation of educational achievements of students the criteria confirmed by the Ministry of Education of BELARUS are used.

The estimation of intermediate educational achievements of students is carried out according to the selected chair a rating scale.

For an estimation of achievements of students the following diagnostic toolkit (are checked the competence) is used:

- Performance of the student at conference on the prepared abstract (AC-1, AC-3, AC-4, AC-5, SLP-1, SLP-2, PC 6);
- Carrying out of current control interrogations on separate themes (PC 1 – PC 6);
- Protection of the individual tasks executed on a practical training (AC-3, AC-5, SLP-1, PC-1 PC 6);
- Protection of the individual tasks performed within the limits of operated independent work (AC-1, AC-3, AC-5, SLP-1, PC 1 – PC 6);
- Passing an examination on discipline (AC-1 – AC-5, PC 1 – PC 6).

CONTENT OF EDUCATIONAL MATERIAL

SECTION 1. The conceptual maintenance of concept of information management

Topic 1. Introduction in information management of the enterprise

Information management as a component of management of the enterprise. Concept of information management. History of occurrence of the given discipline. Tendencies in development of ways of the organization of information resources depending on external and internal conditions of the organization of primary activity of the enterprise. Model of information of the enterprises. Problems and problems of information management. Value and a role of information management in a modern society.

Topic 2. The basic concepts of information resources and information systems

Information systems, their types. Formation of knowledge at the enterprise. Knowledge bases. Information-communication technologies. Technology of reception of administrative knowledge and decision-making. The factors interfering noogenesis on the enterprises.

Topic 3. Modern information technologies in economy

Role and place of information technologies in economy. Spheres of use of modern information technologies in economy. Classification of information technologies.

Topic 4. Typical approaches to the decision of problems of information management

Approach ITIL/ITSM and approach COBIT. Properties of service IT. The basic differences of management of IT Services from management IS.

Topic 5. The information as the goods

Information definition. Consumer properties of the information, its basic characteristics. The information as work means. A supply and demand on the information.

SECTION 2. Enterprise information

Topic 1. Information structure of the organization

Classes of information systems of management. Executive systems of support of management. Levels of management of the organization.

Topic 2. Information systems of the enterprise

Classification of information systems. Creation and development of information system. Efficiency of information systems. Evolution of information of the enterprise.

Topic 3. Interaction of service IT with the organization

Department IT place in organizational structure of management of the organization. Interrelation with organization divisions. The centralized and

decentralized systems of processing of the information. Advantages and lacks. The basic functions of service IS of the organization. Some types of organizational structures IS.

Topic 4. Information resources of the enterprise

Corporate culture. Information culture. Information system and reengineering of business processes.

Topic 5. A technical infrastructure of the automated control systems

The plan for development of a technical infrastructure of object of management and its basic sections. The computer aids used in maintenance of administrative activity. Network technologies and advantages of their use in maintenance of administrative activity. Hierarchical model of a technical infrastructure of the automated control system. An infrastructure of a corporate information network. Directions of network economy and its technical maintenance. Functions of the traditional and virtual enterprise. The means of communication technics used in maintenance of administrative activity (a mobile communication, modem, a radio communication, fibre-optical). The means of organizational technics used in maintenance of administrative activity (data carriers, means of manufacturing of text and tabular documents, means of reprography and operative polygraphy, means of processing of documents, means of storage, search and transportation of documents, bank office equipment).

SECTION 3. Information management and an enterprise environment

Topic 1. Protection of information resources

Essence of a problem of information safety. Information resources "eyes" of the malefactor. Methods of breaking of information system. A policy of safety – the basic method of protection of information resources. An estimation of security of system

Topic 2. Use of the state information services

System of electronic state services as a basis of "the electronic government». Appointment and problems of the state information services. Administrative procedures and problems of "the electronic government» for business and citizens. Introduction stages of "the electronic government». Architecture model of "the electronic government».

Topic 3. The organisations of remote interaction with banks

Use the Internet-banking at the enterprise. Advantages of system "Client-bank". System "Client-bank" and safety. Requirements to system functions "the Client - bank". Requirements to functions of a component of protection of the information. Requirements to kinds of maintenance of system "the Client - bank".

System of remote bank service of Belarusbank. System "Internet-banking" use in Belarusbank. System of remote bank service. System of electronic payments "Client-bank".

SECTION 4. Information logistics as a part of information management

4.1. Bases of construction and the organization of information logistical systems

Information resources in system of logistical management. The information in system of modern logistics. Features of information logistical systems. Information-logistical maintenance organizational-economic activities.

4.2. The integrated software products of domestic manufacturers

Series software products «БЭСТ» of the company «Intelligence Service». Corporation "Sail" Software products. A program complex "Folio-merchant" of firm "Folio". The Control system of enterprise NS2000. The integrated system of automation of a business management "Dominoes" 8. System «Business About». Complex information system "Galaxy". Complex system of automation AVACCO

4.3. Specialized software products of domestic and foreign firms-manufacturers

The automated system of the account of movement of goods X-ART. The automated control system of warehouse E-SKLAD. Program SPIDER PROJECT. The program «the Trade the Master». Program system of automation of trading activity of enterprises "Octopuses". The program «1C: the ENTERPRISE». The Microsoft Business Solutions-Axapta system. Program Axapta Retail. Program complex Trade Assistant. A contour "Logistics" in ERP-class systems. Comparative characteristics of software products of foreign manufacturers

4.4. Geoinformation systems

The purposes, problems and possibilities of geoinformation systems. Foreign geoinformation systems. Domestic geoinformation systems and geomodules. Electronic cards. Application of program GIS-PRODUCTS for the decision of actual logistical problems in business practice

4.5. Internet technologies and their application

The Internet technology maintenance. The main components of a network the Internet and interaction between them. The Software of the user the Internet, applied in logistics. Use of environment the Internet for the decision of logistical problems. Technology of electronic data exchange

4.6. Effective technologies of logistical management

Telematics. A computer telephony. IT Outsourcing. Vocal technologies. Modern control systems of a warehouse — WMS (Warehouse Management System). With ALS-technologists and

SECTION 5. Management of capital investments in information technologies

5.1. Definition of economic efficiency of information technologies

Approaches to an estimation of projects in the field of information technologies and systems. An efficiency estimation as economy of resources. Methods of an estimation of efficiency of investments into IT Projects. An estimation of efficiency of use of network technologies. Model of cumulative cost of possession (CCB) IS (Total Coast of Ownership – TCO).

5.2. Pricing on production IS and IT

Structure and structure of retail prices for information products and services.

Interrelation of economic indicators in information economy. Kinds of the prices for production of information economy. The basic stages of process of formation of the prices for information products and services

5.3. Planning in the environment of information systems

Essence of process of planning in the environment of IS. Bases of strategic planning IS. Phases of strategic planning of information systems.

SECTION 6. Perspective directions of development of information management

6.1. Technologies of contactless identification

The general review of technologies of contactless identification. Biometric technologies. Technology of shaped coding. Technology of radio-frequency identification (RFID-technology). Data gathering terminals. The international system of automatic identification EAN UCC. Network EPC global Network.

6.2. Management of IT Projects

The beginning of work on the project. Project realization. The IT Project of reengineering of business processes.

6.3. Interaction of open information systems

Necessity of construction of the computing and information complexes based on ideology of open systems. Concept of "open system». Base reference model of interaction of open systems - standard ISO 7498. Model of interaction of open systems (MBOC) as the universal tool of the description of various aspects of human activity. Components of a uniform information field. Technologies of open systems (TOC) and stages of construction of information systems.

6.4. Electronic documents and the electronic digital signature

Concept of the electronic document, system of electronic document circulation, managements of corporate information resources (ECM) (Enterprise Content Management). The electronic digital signature (ЭЦП). Law ПБ "About the electronic document and the electronic digital signature". Advantages of electronic document circulation. The mechanism of formation with use of the open and closed keys. Hesh-function, its calculation and algorithms. Problems of the certifying centre. Standards in the field of cryptographic protection of the information. Appointment and the characteristic of software of cryptographic protection of the information. Introduction ECM of system: problems and risks.

6.5. Systems of electronic document circulation

Base functions of systems of electronic document circulation. Conducting electronic archives. Systems of electronic office-work. Functionality and classification СЭД and ECM-systems. A business process example in ECM - system. For that it is not necessary to wait from ECM-system. The analysis and modelling business - of processes. The major factors influencing the decision on a choice of system SED and ECM. Problems of introduction of system of document circulation. Features duplicated SID.

6.6. Kinds of the organization of information management. Outsourcing

Consulting as component of information management. Main objectives of working out of consulting projects. Problems of the manager at reengineering of information systems. Training and improvement of professional skill of top-managers and the personnel. Outsourcing of IT Services and information resources. Offshore outsourcing. Outsourcing business process. Criteria of a choice of outsourcing of IT Services and information resources.

6.7. Management of the personnel in sphere of information systems

Typical block diagrammes of the organization of divisions (or services) information processings. Problems of the personnel of information systems. Organizational behaviour. Kinds of costs on human resources in sphere of information systems. Reception, training and improvement of professional skill of information managers. Methods of training of the personnel in sphere of information systems.

6.8. Electronic stock exchanges and systems of electronic tenders

Electronic stock exchanges (E-exchange), purchases, tenders (E-tender). The basic directions of carrying out of tenders and purchases. The state purchases. The auctions at bankruptcy. Principles of work of electronic tenders, their possibilities and advantage. Information-analytical system of the information on purchases and the organisations. The information on purchases from republican and regional commercial trading platforms. Search of purchases in the chosen criteria. Analytical reports and marketing researches. A business portal of Belarus, its appointment and the basic sections.

EDUCATIONAL-METHODICAL MAP

Section number, topics, classes	Section title, topics, classes; list of issues under study	Total hours	The number of class hours				The number of hours devoted to independent work of students (including hours allocated for the implementation of the course work / project)	Financial support classes (visual, manuals, etc.)	Literature	The forms of knowledge control
			lectures	practical (seminar) classes	laboratory classes	controlled independent work of students (CEB)				
1	2	3	4	5	6	7	8	9	10	11
<i>Section 1</i>	THE CONCEPTUAL MAINTENANCE OF CONCEPT OF INFORMATION MANAGEMENT	32	12	10		10		EEMC and online tutorials featured in the local network of the library, testing through distance learning site	[1-8]	Testing
<i>Topic 1</i>	INTRODUCTION IN INFORMATION MANAGEMENT OF THE ENTERPRISE Information management as a component of management of the enterprise. Concept of information management. History of occurrence of the given discipline. Tendencies in development of ways of the organization of information resources depending on external and internal conditions of the organization of primary activity of the enterprise. Model of information of the enterprises. Problems and problems of information management. Value and a role of information management in a modern society.	8	4	2		2			[1-8]	Testing
<i>Topic 2</i>	THE BASIC CONCEPTS OF INFORMATION RESOURCES AND INFORMATION SYSTEMS Information systems, their types. Formation of knowledge at the enterprise. Knowledge bases. Information-communication technologies. Technology of reception of administrative knowledge and decision-making. The factors interfering noegenesis on the enterprises.	6	2	2		2			[1-8]	lab work report
<i>Topic 3</i>	MODERN INFORMATION TECHNOLOGIES IN ECONOMY Role and place of information technologies in economy. Spheres of use of modern information technologies in economy. Classification of information technologies	6	2	2		2			[1-8]	lab work report
<i>Topic 4</i>	TYPICAL APPROACHES TO THE DECISION OF PROBLEMS OF INFORMATION MANAGEMENT Approach ITIL/TISM and approach COBIT. Properties of service IT. The basic differences of management of IT Services from management IS	6	2	2		2			[1-8]	lab work report

1	2	3	4	5	6	7	8	9	10	11
<i>Topic 5</i>	THE INFORMATION AS THE GOODS Information definition. Consumer properties of the information, its basic characteristics. The information as work means. A supply and demand on the information.	6	2	2		2			[1-8]	lab work report
<i>Section 2</i>	ENTERPRISE INFORMATION	28	10	8		10		EEMC and online tutorials featured in the local network of the library, testing through distance learning site	[1-8]	lab work report
<i>Topic 1</i>	INFORMATION STRUCTURE OF THE ORGANIZATION Classes of information systems of management. Executive systems of support of management. Levels of management of the organization.	6	2	2		2			[1-8]	lab work report
<i>Topic 2</i>	INFORMATION SYSTEMS OF THE ENTERPRISE Classification of information systems. Creation and development of information system. Efficiency of information systems. Evolution of information of the enterprise.	6	2	2		2			[1-8]	lab work report
<i>Topic 3</i>	INTERACTION OF SERVICE IT WITH THE ORGANIZATION Department IT place in organizational structure of management of the organization. Interrelation with organization divisions. The centralized and decentralized systems of processing of the information. Advantages and lacks. The basic functions of service IS of the organization. Some types of organizational structures IS.	8	2	4		2			[1-8]	Testing
<i>Topic 4</i>	INFORMATION RESOURCES OF THE ENTERPRISE Corporate culture. Information culture. Information system and reengineering of business processes.	4	2			2			[1-8]	lab work report
<i>Topic 5</i>	A TECHNICAL INFRASTRUCTURE OF THE AUTOMATED CONTROL SYSTEMS The plan for development of a technical infrastructure of object of management and its basic sections. The computer aids used in maintenance of administrative activity. Network technologies and advantages of their use in maintenance of administrative activity. Hierarchical model of a technical infrastructure of the automated control system. An infrastructure of a corporate information network. Directions of network economy and its technical maintenance. Functions of the traditional and virtual enterprise. The means of communication technics used in maintenance of administrative activity (a mobile communication, modem, a radio communication, fibre-optical). The means of organizational technics used in maintenance of administrative activity (data carriers, means of manufacturing of text and tabular documents, means периферии and operative polygraphy, means of processing of documents, means of storage, search and transportation of documents, bank office equipment).	4	2			2			[1-8]	Testing

1	2	3	4	5	6	7	8	9	10	11
<i>Section 3</i>	INFORMATION MANAGEMENT AND AN ENTERPRISE ENVIRONMENT	12	6	2		4		EEMC and online tutorials featured in the local network of the library, testing through distance learning site	[1-8]	
<i>Topic 1</i>	PROTECTION OF INFORMATION RESOURCES Essence of a problem of information safety. Information resources "eyes" of the malefactor. Methods of breaking of information system. A policy of safety – the basic method of protection of information resources. An estimation of security of system.	4	2	2					[1-8]	Testing
<i>Topic 2</i>	USE OF THE STATE INFORMATION SERVICES System of electronic state services as a basis of "the electronic government». Appointment and problems of the state information services. Administrative procedures and problems of "the electronic government» for business and citizens. Introduction stages of "the electronic government». Architecture model of "the electronic government».	4	2			2			[1-8]	lab work report
<i>Topic 3</i>	THE ORGANISATIONS OF REMOTE INTERACTION WITH BANKS Use the Internet-banking at the enterprise. Advantages of system "Client-bank". System "Client-bank" and safety. Requirements to system functions "the Client - bank". Requirements to functions of a component of protection of the information. Requirements to kinds of maintenance of system "the Client - bank". System of remote bank service of Belarusbank. System "Internet-banking" use in Belarusbank. System of remote bank service. System of electronic payments "Client-bank"	4	2			2			[1-8]	Testing
	Total	72	28	20		24				
<i>Section 4</i>	INFORMATION LOGISTICS AS A PART OF INFORMATION MANAGEMENT	36	14	12			10	EEMC and online tutorials featured in the local network of the library, testing through distance learning site	[3, 9, 18, 19]	Poll, reports, discussion of abstracts
<i>Topic 1</i>	BASES OF CONSTRUCTION AND THE ORGANISATION OF INFORMATION LOGISTICAL SYSTEMS. Information resources in system of logistical management. The information in system of modern logistics. Features of information logistical systems. Information-logistical maintenance organizational-economic activities	8	4	2			2			

1	2	3	4	5	6	7	8	9	10	11
Topic 2	THE INTEGRATED SOFTWARE PRODUCTS OF DOMESTIC MANUFACTURERS. Series software products «БЭСТ» of the company «Intelligence Service». Corporation "Sail" Software products. A program complex "Folio-merchant" of firm "Folio". The Control system of enterprise NS2000. The integrated system of automation of a business management "Dominoes" 8. System «Business About». Complex information system "Galaxy". Complex system of automation AVACCO	6	2	2			2			
Topic 3	SPECIALIZED SOFTWARE PRODUCTS OF DOMESTIC AND FOREIGN FIRMS-MANUFACTURERS. The automated system of the account of movement of goods X-ART. The automated control system of warehouse E-SKLAD. Program SPIDER PROJECT. The program «the Trade the Master». Program system of automation of trading activity of enterprises "Octopuses". The program «1C: the ENTERPRISE». The Microsoft Business Solutions-Axapta system. Program Axapta Retail. Program complex Trade Assistant. A contour "Logistics" in ERP-class systems. Comparative characteristics of software products of foreign manufacturers	6	2	2			2			
Topic 4	GEOINFORMATION SYSTEMS. The purposes, problems and possibilities of geoinformation systems. Foreign geoinformation systems. Domestic geoinformation systems and geomodules. Electronic cards. Application of program GIS-PRODUCTS for the decision of actual logistical problems in business practice	6	2	2			2			
Topic 5	INTERNET TECHNOLOGIES AND THEIR APPLICATION. The Internet technology maintenance. The main components of a network the Internet and interaction between them. The Software of the user the Internet, applied in logistics. Use of environment the Internet for the decision of logistical problems. Technology of electronic data exchange	4	2	2						
Topic 6	EFFECTIVE TECHNOLOGIES OF LOGISTICAL MANAGEMENT. Telematics. A computer telephony. IT Outsourcing. Vocal technologies. Modern control systems of a warehouse — WMS (Warehouse Management System). With ALS-technologists	6	2	2			2			
Section 5	MANAGEMENT OF CAPITAL INVESTMENTS IN INFORMATION TECHNOLOGIES	20	8	6			6	EEMC and online tutorials featured in the local network of the library, testing through distance learning site	[1, 2, 18, 25, 26]	Poll, reports, discussion of abstracts
Topic 1	DEFINITION OF ECONOMIC EFFICIENCY OF INFORMATION TECHNOLOGIES. An efficiency estimation as economy of resources. Methods of an estimation of efficiency of investments into IT Projects. An estimation of efficiency of use of network technologies. Model of cumulative cost of possession (CCB) IS (Total Coast of Ownership – TCO)	8	4	2			2			

1	2	3	4	5	6	7	8	9	10	11
<i>Topic 2</i>	PRICING ON PRODUCTION IS AND IT. Structure and structure of retail prices for information products and services. Interrelation of economic indicators in information economy. Kinds of the prices for production of information economy. The basic stages of process of formation of the prices for information products and services	6	2	2			2			
<i>Topic 3</i>	PLANNING IN THE ENVIRONMENT OF INFORMATION SYSTEMS. Essence of process of planning in the environment of IS. Bases of strategic planning IS. Phases of strategic planning of information systems.	6	2	2			2			
<i>Section 6</i>	PERSPECTIVE DIRECTIONS OF DEVELOPMENT OF INFORMATION MANAGEMENT.	62	18	16			28	EEMC and online tutorials featured in the local network of the library, testing through distance learning site	[5, 20, 22, 23, 24]	Poll, reports, discussion of abstracts
<i>Topic 1</i>	TECHNOLOGIES OF CONTACTLESS IDENTIFICATION. Data gathering terminals. The international system of automatic identification EAN UCC. Network EPC global Network	8	4	2			2			
<i>Topic 2</i>	MANAGEMENT OF IT PROJECTS. The beginning of work on the project. Project realization. The IT Project of reengineering of business processes	4	2	2						
<i>Topic 3</i>	INTERACTION OF OPEN INFORMATION SYSTEMS. Necessity of construction of the computing and information complexes based on ideology of open systems. Concept of "open system». Base reference model of interaction of open systems - standard ISO 7498. Model of interaction of open systems (MBOC) as the universal tool of the description of various aspects of human activity. Components of a uniform information field. Technologies of open systems (TOC) and stages of construction of information systems.	6	2	2			2			
<i>Topic 4</i>	ELECTRONIC DOCUMENTS AND THE ELECTRONIC DIGITAL SIGNATURE. Concept of the electronic document, system of electronic document circulation, managements of corporate information resources (ECM) (Enterprise Content Management). The electronic digital signature (ЭЦП). Law РБ "About the electronic document and the electronic digital signature". Advantages of electronic document circulation. The mechanism of formation with use of the open and closed keys. Hesh-function, its calculation and algorithms. Problems of the certifying centre. Standards in the field of cryptographic protection of the information. Appointment and the characteristic of software of cryptographic protection of the information. Introduction ECM of system: problems and risks.	6	2	2			2			

1	2	3	4	5	6	7	8	9	10	11
Topic 5	SYSTEMS OF ELECTRONIC DOCUMENT CIRCULATION . Base functions of systems of electronic document circulation. Conducting electronic archives. Systems of electronic office-work. Functionality and classification CЭД and ECM-systems. A business process example in ECM - system. For that it is not necessary to wait from ECM-system. The analysis and modelling business - of processes. The major factors influencing the decision on a choice of system SED and ECM. Problems of introduction of system of document circulation. Features duplicated SID.	18	2	2			14			
Topic 6	KINDS OF THE ORGANIZATION OF INFORMATION MANAGEMENT. Outsourcing. Consulting as component of information management. Main objectives of working out of consulting projects. Problems of the manager at reengineering of information systems. Training and improvement of professional skill of top-managers and the personnel. Outsourcing of IT Services and information resources. Offshore outsourcing. Outsourcing business process. Criteria of a choice of outsourcing of IT Services and information resources.	4	2	2						
Topic 7	MANAGEMENT OF THE PERSONNEL IN SPHERE OF INFORMATION SYSTEMS. Typical block diagrammes of the organization of divisions (or services) information processings. Problems of the personnel of information systems. Organizational behaviour. Kinds of costs on human resources in sphere of information systems. Reception, training and improvement of professional skill of information managers. Methods of training of the personnel in sphere of information systems.	8	2	2			4			
Topic 8	ELECTRONIC STOCK EXCHANGES AND SYSTEMS OF ELECTRONIC TENDERS. Electronic stock exchanges (E-exchange), purchases, tenders (E-tender). The basic directions of carrying out of tenders and purchases. The state purchases. The auctions at bankruptcy. Principles of work of electronic tenders, their possibilities and advantage. Information-analytical system of the information on purchases and the organisations. The information on purchases from republican and regional commercial trading platforms. Search of purchases in the chosen criteria. Analytical reports and marketing researches. A business portal of Belarus, its appointment and the basic sections.	8	2	2			4			
	Exam preparation	36					36			
Total		154	40	34			80			
All total		226	68	54			104			

INFORMATION-METHODICAL MATERIALS ON DISCIPLINE

The list of the recommended literature

The basic literature:

1. Abdikiev N.M. Information management. The textbook / д.т.н., проф. N.M.Abdikiev. - M: Infra Th, 2010. (Textbooks for program MBA).
2. Giljarevsky R.S. Informatsionnyj management: management of the information, knowledge, technology / R.S.Giljarevsky - M: the Trade, 2009.
3. Grinberg A.S. information management: Studies. The grant for vuzov./A.S.Grinberg, И.А. The king. — M: it JUNITI-IS given, 2003.
4. Gulin V. N. Information management: V.N.Gulin's educational complex/. - Minsk: Соврем.шк., 2009.
5. Gulin V. N. 1C: the Enterprise 8.1: the practical grant / V.N.Gulin.-Minsk: Дикта, 2010.
6. Романов A.N. information of system in economy. Ucheb.posobie/prof. Романов A.N., проф Odintsov B.E. - M: the high school textbook, 2009.
7. Абдикеев N.M. Internet technolog in economy of knowledge. The Textbook / of prof. N.M.Abdikeev - M.: ИИФРА-М, 2010.
8. A.V.method's fires and model of information management: studies. The grant/D.V. Alexanders, A.V.fire, R.I.Makarov, E.R.Horosheva; under the editorship of A.V.Kostrova. - M: the Finance and statistics, 2007

The additional literature:

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PROTOCOL AGREEMENT CURRICULUM SVR

The name of discipline, which requires approval	Name of department	Proposals for changes in the content of the training on the subject matter under study program	Action taken by the Department, develop training programs (With date and protocol number)
Computer Information Technologies	Department of Informatics and EMM in AIC	No offers	Considered at the meeting of the department, to Protocol N ° 15 on May 24, 2019
Information production support	Department of Management, Marketing and Law	No offers	Considered at the meeting of the department, to Protocol N ° 15 on May 24, 2019

ADDITIONS AND CHANGES TO EDUCATIONAL PROGRAM SVR

on ____ / ____ school year

№	Additions and changes	Base

The curriculum is reviewed and approved at a meeting of the department Informatics and EMM in the AIC (protocol № ____ from ____ 20__)
(the department name)

Head of Department

Candidate of Physics and Mathematics Sciences, Associate Professor
(academic degree, academic title)

(signature)

T.N.Izosimova
(Initials and Family names)

APPROVED

Dean of the Faculty

Candidate of Economics. Sciences, Associate Professor
(academic degree, academic title)

(signature)

A.V.Gribov
(Initials and Family names)