Syllabus
of the educational discipline
"BASICS OF THE INFORMATION ECONOMY"
for students of study direction
6.030601 "Management"
for all forms of learning

Thematic plan of the educational discipline "Basics of the information economy" in modules and themes is presented. The syllabus contains plans for lectures and seminars (practices), questions for independent training, the criteria for estimating students' knowledge.

It is recommended for students of direction 6.030601 "Management".

Подано тематичний план навчальної дисципліни за модулями та темами, вміщено плани лекцій і семінарських (практичних) занять, запитання для самостійної роботи, критерії оцінювання знань студентів.

Рекомендовано для студентів напряму підготовки 6.030601 "Менеджмент".
Introduction

Discipline "Basics of the information economy" refers to the variable cycle of professionally oriented Bachelor courses in the direction of 6.030601 "Management and Administration" with specialization "Administration of the enterprises".

The subjects of the study are general laws, principles of formation and development of information economy.

Discipline "Basics of the information economy" is based on general knowledge of humanitarian subjects and knowledge of fundamental subjects "Economic Theory", "Microeconomics", "Macroeconomics", "Information systems and technologies", "Marketing", "Management". The syllabus is related to disciplines that characterize the object of management, or some of its functions – economic, financial, accounting and information disciplines.

An essential element of successful learning of the discipline is the independent work of students with literature of the general theory and practice of management, management features in the information economy, the regulations on state management and control of the economy.

During the course students receive the necessary knowledge during classes: lectures, practices (seminars). The most difficult issue is put for consideration and discussion during seminars. Also, of great importance in the process of learning and consolidation of knowledge is self-study of students. All these types of studies are designed according to Bologna declaration.

The purpose of the discipline is: the formation of the necessary theoretical knowledge and practical skills for working in modern conditions of the information economy. To achieve the goal set there are the following targets:

- form a coherent system of knowledge about the information economy;
- learn to organize and conduct information activities at any facility;
- acquisition of theoretical knowledge and practical skills to head management information service (firm);
- identify the resources needed to increase the efficiency of production and business information services (firms) and be able to mobilize them.

Structure of the educational discipline "Basics of the information economy" is presented in Tab. 1.
Table 1

<table>
<thead>
<tr>
<th>Training Course: Bachelor direction</th>
<th>Field of knowledge, training direction, educational qualification</th>
<th>Qualification level of discipline characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>The number of credits corresponding ECTS – 3 including: contents modules – 1; independent work</td>
<td>Field of knowledge: 0306 – &quot;Management and Administration&quot;</td>
<td>Required. Academic year – 3. Semester – 2 (6)</td>
</tr>
<tr>
<td>Hours for topics: module 1 – 108; total – 108</td>
<td>Direction of study 6.030601 &quot;Management&quot;</td>
<td>Lectures (theoretical training) – 17 hours Practical (seminar) studies – 17 hours Independent training – 74 hours</td>
</tr>
<tr>
<td>Weeks of teaching of the educational discipline: 17. Hours per week – 2</td>
<td>Educational qualification: bachelor</td>
<td>Assessment: module control</td>
</tr>
</tbody>
</table>

1. Qualification requirements for students

Discipline "Basis of the information economy" is based on knowledge of fundamental subjects "Economic Theory", "Microeconomics", "Macroeconomics", "Management", "Information systems and technologies".

Discipline enables students to obtain general theoretical knowledge and form them into specific functional competencies that will form the basis for further learning professionally-oriented courses and contribute to further increase of the level of training.

Within the course students receive the necessary knowledge during lectures and seminars, carrying out practical tasks and individual training and testing tasks. Also of great importance in the process of learning and getting knowledge is independent work of students.

As a result of learning the discipline students must know:
the implications of the IT transformation;
the processes involved in developing and acquiring information systems;
various information systems required for quick-response operations and efficient business processes;
the effectiveness of different options of management activities information support;
an information system strategy of an enterprise.

Be able to have next competencies:
to organize and conduct information activities at any facility;
to discuss the processes involved in developing and acquiring information systems;
to use e-commerce for the integration of enterprises in the information economy;
to design and implement an information technology strategy that will align with business strategy for competitive advantage;
to describe how firms use electronic commerce strategy and technology to transform the way they carry out operations;
to discuss how information technology enables organizations to handle the present, remember the past, and prepare for the future through the use of information systems;
to evaluate the effectiveness of different options of management activities information support;
to analyze information flows in the enterprise;
to develop and maintain the company's Web site.

The discipline syllabus was developed in accordance with industry standards for higher education based on educational and vocational training programs for bachelor's degree.

2. Thematic plan of the educational discipline

From the beginning of studying the discipline, every student should be acquainted with the syllabus as a form of the discipline and training, and the structure, content and scope of each of its training modules, and with all kinds of monitoring and evaluation of training methods.
Courses under the syllabus of the educational discipline "Basics of the information economy" are in the following forms: lectures, practical exercises, independent work of students, controls.

The studying of the discipline consists of the training modules. Study is a relatively independent unit of a separate discipline, which logically combines several elements of training courses in content and relationships.

Thematic plan of the discipline "Basics of the information economy" consists of one module (tab. 2).

### Table 2

**Structure of a test credit of the educational discipline**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Quantity of hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lectures</td>
</tr>
<tr>
<td><strong>Module 1. Fundamentals of doing business in the information economy</strong></td>
<td></td>
</tr>
<tr>
<td>Theme 1. Information economy: formation, nature and main features</td>
<td>2</td>
</tr>
<tr>
<td>Theme 2. Information - main resource of the enterprise in the information economy</td>
<td>2</td>
</tr>
<tr>
<td>Theme 3. Information technologies and information systems in enterprises</td>
<td>2</td>
</tr>
<tr>
<td>Theme 4. The information systems strategy</td>
<td>2</td>
</tr>
<tr>
<td>Theme 5. Electronic commerce and the information economy</td>
<td>2</td>
</tr>
<tr>
<td>Theme 6. Implementation of e-commerce</td>
<td>1</td>
</tr>
<tr>
<td>Theme 7. Marketing in the information economy</td>
<td>2</td>
</tr>
<tr>
<td>Theme 8. Payments technologies in information economy</td>
<td>2</td>
</tr>
<tr>
<td>Theme 9. E-commerce evaluation</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>
3. Contents of the educational discipline according to modules and themes

In studying the subject "Basics of the information economy," the student should check out a program of discipline, its structure, forms and methods, types and methods of knowledge control.

Thematic plan of the discipline "Basics of the information economy" consists of one module.

Training is carried out in the following forms: lectures, seminars and practical exercises, independent work of students.

*Module 1. Fundamentals of doing business in the information economy*

**Theme 1. Information economy: formation, nature and main features**

The essence of the information society. Stages of development of the information society.

Main trends of the information economy. The essence of the information economy and its main characteristics.

**Theme 2. Information – main resource of the enterprise in the information economy**

The essence and main characteristics of information. Information functions.

The essence and characteristics of information resources. General and specific qualities of information resources. Types of information resources.

Requirements to the resource management system.

**Theme 3. Information technologies and information systems in enterprises**

The essence and basic properties of information technology. Types of information technology.
The essence of information systems. The relationship of information systems and technologies. Information systems functions and information system cycle. Using IS functions to deal with business risks.

New opportunities of enterprises that are using information technologies. Types of information systems in organizations.

**Theme 4. The information systems strategy**

The impact of IS on organizations. The information systems strategy triangle.


The essence and structure of information systems strategy.

**Theme 5. Electronic commerce and the information economy**

The e-commerce development. The essence and main characteristics of e-commerce. The structure of e-commerce.


**Theme 6. Implementation of e-commerce**

Definition and classification of business-related Web sites.

Organization of web-site of a company. Types of web sites. The content and the structure of the site. Evaluating the effectiveness of the site.

Limitations of electronic commerce.

**Theme 7. Marketing in the information economy**

Opportunities and challenges of marketing in the information economy. The essence of internet marketing. Methods of internet marketing. E-marketing plan.

The possibilities using Internet in advertising of the company. Web advertising. Attracting customers. The main models of attractiveness.
Theme 8. Payments technologies in information economy

The online banks and its functions.
Electronic payment system. Components of e-money systems. Types of payment systems.
Types of risk involved in electronic money schemes.

Theme 9. E-commerce evaluation

Methods of e-commerce analysis.
Methods of the evaluation and analysis of e-commerce web sites.
Method of e-commerce case analysis. PEST analysis, competition factor analysis and others techniques.

4. Plans of lectures

Module 1. Fundamentals of doing business in the information economy

Theme 1. Information economy: formation, nature and main features

1. Stages of development of information society.
2. The essence of the information economy and its main characteristics.
References: main : [4; 5; 8]; ancillary : [11].

Theme 2. Information – main resource of the enterprise in the information economy

1. Information and information resources: the essence and main characteristics.
2. Classification of information resources.
3. Information Resources Management.
References: main : [2; 8]; ancillary : [12; 15].
Theme 3. Information technologies and information systems in enterprises

1. The concept of information communications technology: basic properties and types.
2. Enterprise information systems.
3. Types of business information system.
References: main : [7; 10]; ancillary : [14; 20].

Theme 4. The information systems strategy

1. The information systems strategy triangle.
2. The essence and structure of information systems strategy.
References: main : [8; 9]; ancillary : [13; 19; 20].

Theme 5. Electronic commerce and the information economy

1. The origin and development of e-commerce.
2. The definitions of e-commerce.
3. Categories of the e-commerce.
References: main : [8]; ancillary : [12; 19; 21; 24; 30].

Theme 6. Implementation of e-commerce

1. Definition and types of web sites.
2. Contents and structure of web site.
3. Limitations of electronic commerce.
References: main : [7; 8]; ancillary : [12; 15; 21; 30].

Theme 7. Marketing in the information economy

1. Opportunities and challenges of marketing in the information economy.
2. Internet marketing.
3. The possibilities of using Internet in advertising of the company.
4. Attracting customers.
References: main : [5; 7]; ancillary : [15; 21 – 23].
Theme 8. Payments technologies in information economy

1. The online banks and its functions.
2. The essence and features of electronic money.
3. Electronic payment system.

References: main : [2; 4]; ancillary : [12; 19; 20; 22 – 24].

Theme 9. E-commerce evaluation

1. Methods of the evaluation and analysis of e-commerce web sites.

References: main : [1; 8]; ancillary : [11; 14; 20 – 21].

5. Plans of seminars and practices

Seminar is a form of instruction where teacher organizes the discussion around certain topics to which students prepare the thesis.

Practice is a form of instruction where a teacher organizes a detailed consideration of individual students' theoretical learning. Students obtain skills and practical experience through individual performance of various tasks.

Practical studies based on previously prepared methodical material – tests serve to detect the degree of student mastery of necessary theoretical terms, a set of tasks of varying complexity for solving by the students in class.

Workshop includes a previous control of knowledge and skills of students. Teachers formulate a common problem and discuss with students.

The list of topics of seminars and practical studies on the discipline "Basics of the information economy" is presented (tab. 2).
<table>
<thead>
<tr>
<th>Theme</th>
<th>Questions</th>
<th>Hours</th>
<th>Bibliography</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme 1. Information economy: formation, nature and main features</strong>&lt;br&gt;1. The concept of information economy.&lt;br&gt;2. Infrastructure of the information economy.&lt;br&gt;3. Features of state regulation of the information sphere</td>
<td></td>
<td>2</td>
<td>main : [1 – 3]; ancillary : [11; 12]</td>
</tr>
<tr>
<td><strong>Theme 2. Information – main resource of the enterprise in the information economy</strong>&lt;br&gt;1. Information as a fundamental resource of the functioning and development.&lt;br&gt;2. Company information structure.&lt;br&gt;3. The key features and information requirements.&lt;br&gt;4. Concept and types of information flows. Information barriers.&lt;br&gt;5. Sources of information</td>
<td></td>
<td>2</td>
<td>main : [1; 2; 6]; ancillary : [18; 20]</td>
</tr>
<tr>
<td><strong>Theme 3. Information technologies and information systems in enterprises</strong>&lt;br&gt;1. Concept and classification of information systems.&lt;br&gt;2. Information technology, their development and classification.&lt;br&gt;3. Economic information systems: basic properties and classification.&lt;br&gt;4. Approaches to the choice of economic information system</td>
<td></td>
<td>2</td>
<td>main : [2; 7; 8]; ancillary : [11; 14; 20]</td>
</tr>
<tr>
<td><strong>Theme 4. The information systems strategy</strong>&lt;br&gt;1. Concept and types of strategies.&lt;br&gt;2. The relationship between information and business strategy</td>
<td></td>
<td>2</td>
<td>main : [3; 5]; ancillary : [11; 13; 20; 21]</td>
</tr>
<tr>
<td><strong>Theme 5. Electronic commerce and the information economy</strong>&lt;br&gt;1. Problems of organization of business processes in the Internet.&lt;br&gt;2. E-Business</td>
<td></td>
<td>2</td>
<td>main : [4; 9]; ancillary : [11; 12; 15; 21]</td>
</tr>
<tr>
<td><strong>Theme 6. Implementation of e-commerce</strong>&lt;br&gt;1. The principles of integration of the real sector enterprises in the information economy.&lt;br&gt;2. Using the models of e-commerce</td>
<td></td>
<td>1</td>
<td>main : [4; 9]; ancillary : [11; 12; 15; 21; 30]</td>
</tr>
<tr>
<td></td>
<td>1</td>
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<td>3</td>
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<td>-------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Theme 7. Marketing in the information economy</strong></td>
<td>1. Classification of Internet – services.</td>
<td>2. Possibilities of using Internet in advertising.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3. Using Internet in the marketing activities of the company.</td>
<td>4. The world market of the Internet-services</td>
<td></td>
</tr>
<tr>
<td><strong>Theme 8. Payments technologies in information economy</strong></td>
<td>1. Online competitors of the traditional banks.</td>
<td>2. The nature and practice of online banking.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3. The structure of online corporate and stock trading</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theme 9. E-commerce evaluation</strong></td>
<td>1. Evaluation of the quantitative and qualitative indicators of business</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

6. Independent training

A necessary element of successful learning courses is independent study of domestic and foreign special economic literature, statistical materials.

The main types of independent work of a student:
1. The study of main and additional literature.
2. Preparation for practical seminars, doing homework.
3. Preparing for the intermediate and final control.

The main types of independent work, students are offered in tab. 3.
Table 3

Structure of independent training

<table>
<thead>
<tr>
<th>Themes</th>
<th>Independent training</th>
<th>Hours</th>
<th>Bibliography</th>
</tr>
</thead>
</table>
| Thème 1. Information economy: formation, nature and main features | 1. The evolution of the information economy.  
2. Theories of the information society | 8     | main : [1 – 3]; ancillary : [11; 12] |
| Thème 2. Information – main resource of the enterprise in the information economy | 1. Types of information resources.  
2. The structure of of the enterprise information environment | 8     | main : [1; 2; 6]; ancillary : [18; 20] |
| Thème 3. Information technologies and information systems in enterprises | 1. The concept of an information system.  
2. The life cycle of an information system | 9     | main : [2; 7; 8]; ancillary : [11; 14; 20] |
2. Types of information systems strategies | 8     | main : [3; 5]; ancillary : [11; 13; 20; 21] |
| Thème 5. Electronic commerce and the information economy | 1. E-commerce strategies | 9     | main : [4; 9]; ancillary : [11; 12; 15; 21] |
2. Indicators of evaluation of a company Web site | 8     | main : [4; 9]; ancillary : [11; 12; 15; 21; 30] |
2. Role of Internet in creating a company image | 8     | main : [4; 7]; ancillary : [12; 13; 21; 26 – 29] |
2. Experience of online structures in Ukraine | 8     | main : [2; 7; 8]; ancillary : [12; 19; 20; 26] |
| Thème 9. E-commerce evaluation | 1. Assessment of e-shop activity | 8     | main : [4; 8]; ancillary : [12; 16; 17; 20; 21; 24] |
| Total | | 74 | |


7. Questions for self-control

1. Preconditions of the information society.
2. Describe the stages of the information society development.
3. Describe the existing paradigm of the information economy.
4. The main characteristics of the information economy.
5. Describe connection between information society and information economy.
6. Describe the essence of information and information resources.
7. Describe the properties of the information resources.
8. Concept and types of information flows of the company.
9. Requirements for the information that circulates in the enterprise.
10. Development of an information system.
11. The concept of information goods.
12. Information industry and its structure.
13. Types of information technologies.
14. Types of information systems in the enterprise.
15. Levels of information systems in the enterprise.
17. Relationship of information, organizational and business strategies.
18. Types of business strategy.
21. The concept and structure of e-commerce.
22. Models of e-commerce.
25. Organization of business in the Internet.
27. E-commerce development.
29. Effectiveness of the web site.
30. Traditional marketing methods.
31. Information resources as an economic category.
32. Sources of information.
33. Information functions.
34. Information systems functions.
35. Properties of the information resources.
36. Types of information resources.
37. The methods of online marketing.
38. Progress of the goods in the Internet.
39. Features of Internet advertising.
40. Types of online advertising.
41. Indicators of online advertising campaigns evaluation.
42. Web site attractiveness.
43. Electronic payments.
44. Electronic payment systems and settlement.
45. Perspective directions of development of the electronic commerce.
46. Signs of the e-commerce classification.
47. What is the specific functioning of B2B?
48. What is the specific functioning of B2C?
49. What is the specific functioning of C2C?
50. What is the specific functioning of C2B?
51. The main components of electronic commerce.
52. Types of Web-sites.
53. The advantages of online sales.
54. Disadvantages of electronic payments.
55. Requirements for electronic payments.
56. Describe the electronic money.
57. What is the difference between electronic money and transfer money electronically?
58. How to optimize the effectiveness of Web-site?
59. What is the difference between information technology and information system?
60. Why IT is an integral part of the information economy?
61. What are the limitations of e-commerce?
62. Describe the methods of e-commerce analysis.
63. Describe methods of e-commerce case analysis.
64. How to analyze competitiveness?
65. Online banking.
66. The functions of online bank.
67. Forms of e-payments.
68. What are the available payment systems for electronic commerce?
69. What are the three Web technologies? Which is used for business-to-business electronic commerce?

70. List the eight types of Web sites commonly used in electronic commerce. Provide examples of the first three types.

71. What are attractors? Why are they important in choosing an electronic commerce strategy?

72. The structure of information system cycle.

73. In what ways does information technology help an organization to handle the present?

74. How is the past remembered in an organization?

75. In what ways does information technology help an organization prepare for the future?

76. Why is it important for business strategy to drive organizational strategy and IS strategy?

77. What is an e-marketing plan?

8. Individual and consulting work

Individual and consulting work is advisory work in the form of: individual lessons, consultations, checking of individual tasks, verification and security problems that made the current control.

The forms of individual and advisory work are:

a) theoretical material:
   consulting: individual (question – answer);
   group (considering typical examples – cases);

b) learning practical material:
   individual and group counseling;

c) a comprehensive assessment of learning program material:
   individual presentation of the works.

9. System of current and final assessment

Control measures include the current and final assessment.
Inspection and testing of students may be conducted in the following forms:

1. Assessment of student’s knowledge during seminars, practice and hands-on lectures.

2. Of intermediate testing.

3. Final module control.
The evaluations are conducted by a 12-point scale according to the following criteria:

1) understanding the degree of assimilation of theory and methodology issues are to be considered;

2) the degree of mastering the facts of the discipline;

3) introduction of recommended books, as well as modern literature on the issues are to be considered;

4) ability to combine theory with practice in the consideration of design situations, solving problems, carrying out calculations when performing tasks made for self-processing, and tasks, made in the classroom;

5) logic, structure, style of presentation in writings and in speeches to the audience, the ability to justify their position, to summarize available information and draw conclusions.

Evaluating students' knowledge during the seminars and workshops aimed at checking the level of preparedness of students for specific work.

In evaluating the practical tasks attention is also paid to quality, independence and timeliness of completed tasks defense (according to the schedule of the educational process). If any of the requirements not be carried out, the assessment at the discretion of the teacher will be lowered.

Overall assessment of the discipline consists of the current estimates and assessment for the implementation of modular control work.

The current testing control determines the students' knowledge of theoretical issues of the discipline.

Test tasks cover all the topics that are studied within the discipline "Basics of of the information economy".

The format of tests is divided into:
- task of the closed form with proposed answers;
- task of the open form of free answers.

Test tasks differ according to answers structure.

1. Alternative test tasks that imply two answers like "yes – no", "right – wrong," etc., they are used to check the choice or decision in collapsed form.

2. Test tasks for recovery compliance of parts are a modification of tests with multiple choices and presented in two or more columns of words, phrases, graphics, digital or letter designations, etc.

3. Test tasks of comparing and contrasting are recommended to check the skills to detect identities of different events, situations, etc.

4. Test tasks with multiple answers "true – false" implies that the answers or solutions can only be right or wrong. They tested the depth of knowledge and understanding of different aspects of phenomena and processes.
5. Test tasks to reproduce the correct sequence are used to test the skills and knowledge of correct sequence of actions (regulatory activity), algorithms of the technological methods, etc., as well as knowledge of generally accepted definitions of definitions, rules, laws, regulations fragments, and so on.

6. Open test tasks involving free answers, are proposed tasks without answers and used for knowledge of discovery terms, definitions, etc.

Test tasks for the intermediate test control will be chosen from the general list.

A test contains 12 questions of individual and multiple choice testing for major categories of discipline.

For the evaluation of student’s answers to the test task the following criteria are used: "excellent" – 90 – 100% of correct answers, "good" – 75 – 90% of correct answers, "satisfactory" – 55 – 75% correct, "unsatisfactory" – less than 55% of correct answers.

Final module control is carried out and evaluated by two components: practical and lecture module control.

Each task of module control is assessed separately. The total assessment is calculated as an average of estimates for each task.

Example of Module task

Theoretical part

1. Compare the information resources with other resources. What are the distinctive features of information resources?

Test

1. Property of the Internet to exchange information in various forms:
   a) interactivity;
   b) multimedia;
   c) integrative;
   d) the information capacity.
2. Web site providing comprehensive information on a specific topic:
   a) site-quest;
   b) portal;
   c) community of interest;
   d) utility.
3. What are the main stages of conversion process:
   a) awareness, closure, attraction;
   b) design, awareness, attraction, closure;
c) design, awareness, attraction, contact, retention;
d) awareness, attraction, contact, closure, retention.

4. What is the social organization based on the use of energy to the machines:
   a) digitization;
   b) pre-industrial;
   c) the post-industrial;
   d) industrial.

5. What are the components of the system:
   a) input, output, and feedback;
   b) input, processing, output, and feedback;
   c) input, processing, output;
   d) all true.

6. The kind of teleportation method to transmit business documents from one computer to another:
   a) Intranet;
   b) EDI;
   c) Extranet;
   d) VAN.

**Practical part**

**Task 1**

Analyze web site efficiency. The data of your web site traffic are presented in Tab. 4.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of aware customers</td>
<td>92 000</td>
</tr>
<tr>
<td>Number of &quot;hits&quot;</td>
<td>58 000</td>
</tr>
<tr>
<td>Advertising cost</td>
<td>1600$</td>
</tr>
<tr>
<td>Number of visits</td>
<td>1020</td>
</tr>
<tr>
<td>Number of repurchase</td>
<td>32</td>
</tr>
<tr>
<td>Number of sales</td>
<td>102</td>
</tr>
<tr>
<td>Total Output</td>
<td>10200$</td>
</tr>
<tr>
<td>Target audience</td>
<td>130 000</td>
</tr>
</tbody>
</table>

Table 4
Define all efficiency indicators, average output per purchase and advertising cost per unique users. Make a conclusion about web site efficiency.

**Task 2**

1. Read the company review.
2. List and describe the existing information system strategies, and their structural elements.
3. Describe the advantages and disadvantages of each of the possible ways of acquiring the information systems from the perspective of the company (according to Tab. 5).
4. List the criteria (factors), their nature and importance, which are used in making decisions about the acquisition of information systems at the enterprise.
5. Suggest the most appropriate strategy for this company.

<table>
<thead>
<tr>
<th>Ways of acquiring information system</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a system independently</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order the development of IS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buy a comprehensive IS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Company Review**

Industrial enterprise "Foton", founded in 1932, has been producing precision optical instruments. At the present time (2010), various offices of the company have more than 100 personal computers. In 10 offices, computers are connected to the network. Software is separate accounting packages, inventory and personnel records of the early 90s own development.

The staff consists of programmers of 10 people who are constantly engaged in refining and maintaining existing programs. In addition, each office has a system administrator responsible for the operation of computers and installation.

The problem now is that the manager has some problem with finished goods inventory management, monitor the timely receipt of raw materials and
to introduce quality control, to determine at what stage of the process is one or another party. Annual losses (estimated by analysts) are 800 thousand UAH.

As a result of market research, there were offered the following options:

1. Independently develop a system that fully meets the needs of the company. For this we need to hire a specialist in information technologies, to invest in the development of programs; to train the firm personnel working with the system (training for one month 3 times a week for 1 hour) and provide monthly maintenance of the system (3 hours per month).

2. Order the development of IS. For this we need to invest in a system order, train personnel working with the system (training for one month 3 times a week for 1.5 hours) and provide monthly maintenance of the system (6 hours per month).

3. Buy a comprehensive system of enterprise automation. For this we need to invest in the purchase of the system, train personnel working with the system (training for a month 2 times a week for 2 hours) and provide monthly maintenance of the system (6 hours per month).

Table 6

<table>
<thead>
<tr>
<th>Management systems (software)</th>
<th>Local systems for small business</th>
<th>Integrated systems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1С Parus Kompas</td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>Navision Scala Galaktika</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>Edwards Platinum SQL</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td>Phased, 4 months and more</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phased, 6 – 9 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phased, complex, 9 – 12 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2500 (domestic), 50 000 (foreign)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 000</td>
<td>100 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0,5 mln.</td>
</tr>
</tbody>
</table>

Criteria for evaluation of students’ knowledge

Students’ responses are evaluated according to 12-point scale according to the qualification requirements for students in "Management".

To assess students' answers to theoretical questions and practical issues the following criteria are used:

**mark 12** is put for profound learning of the program material, the application to response not only recommended, but ancillary literature and creative approach, clear knowledge of concepts, methods, techniques and research tools. Answers must be complete and correct, answer design – neat, logical and consistent. For the task a student applies either a typical
algorithm or independently developed algorithms. Conclusions to task are quite reasonably justified;

mark 11 is put for profound learning of program material and recommended literature, clear knowledge of concepts, methods, techniques and research tools, the ability to use them for specific practical problems, solving situations. Practical tasks are performed using the default algorithm, self-developed algorithm and reasoned conclusions are made. When performing tasks a student made minor inaccuracies.

mark 10 is put for the complete assimilation of program material and recommended literature, clear knowledge of concepts, methods, techniques and research tools, the ability to use them for specific practical problems, solving situations. Practical tasks are performed using the default algorithm, self-developed algorithm and reasoned conclusions are made. Practical tasks are carried out properly in general, as the full model using the algorithm with some modifications. Incidental minor errors that do not significantly influence the completeness and consistency of the response are permitted. Design of the completed task should be neat;

mark 9 is put for the full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve practical problems, if all requirements stipulated for the evaluation "excellent" in the presence of minor arithmetic errors (i.e. approach to solving a problem is correct, but there were inaccuracies in the calculation of certain parameters), or not quite complete withdrawal by the results obtained by the task;

mark 8 is put for the full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve practical problems. Practical tasks are carried out in general correctly using the default algorithm, but the student assumes certain immaterial errors (for example, a methodical approach to problem solving is true, but supposed inaccuracies in the calculation of certain indicators or reflections);

mark 7 is put if a student when performing practical tasks applies the basic knowledge of educational material provided for the curriculum. Practical tasks are carried out in general correctly using the default algorithm, but the student assumes certain immaterial errors (such as logical errors);

mark 6 is put for the lack of ability to apply theoretical knowledge to solve practical problems, if the task is mainly accomplished and goals achieved, the student’s response demonstrated understanding of the conceptual material of the educational discipline. In carrying out practical tasks without sufficient understanding student uses educational materials and makes significant errors;
**Mark 5** is put for partial ability to apply theoretical knowledge to solve practical problems, if the task is partially completed, and student’s response demonstrated understanding of the conceptual material of the discipline;

**Mark 4** is put in cases when a student performs practical tasks without sufficient understanding of course material, makes significant errors, faces difficulties in analysis and comparison of economic phenomena and processes;

**Mark 3** is put for not acquiring a large piece of material to those who can not properly perform practical tasks facing many difficulties in the analysis of economic phenomena and processes;

**Mark 2** is put to the student who did not master the program material, the practical challenge was not met, almost no analysis of the situation and the rationale for certain administrative decisions was made;

**Mark 1** is put for failure to perform the task in general.

To summarize the students’ knowledge of the educational discipline "Basics of the information economy" the overall assessment that takes into account estimates of each type of control is assigned. Overall assessment of the discipline is calculated as the weighted sum of evaluations: 0,4 (average estimation of current control) + 0,6 (estimate of the final module control).

Summary evaluation of the discipline in accordance with the Methods of transfering indicators of students’ success into university assessment scale ECTS is converted to the grade on a scale of ECTS (tab. 7).

### Table 7

<table>
<thead>
<tr>
<th>Percentage of students who are usually successful, but achieve an appropriate evaluation rating scale</th>
<th>ECTS assessing scale</th>
<th>Assessment of the Kharkiv National University of Economics scale</th>
<th>Assessment due to the national scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Excellent performance</td>
<td>A</td>
<td>12 – 11</td>
</tr>
<tr>
<td>25</td>
<td>Above average</td>
<td>B</td>
<td>10</td>
</tr>
<tr>
<td>30</td>
<td>Work is correct in general, but with a number of errors</td>
<td>C</td>
<td>9 – 7</td>
</tr>
<tr>
<td>25</td>
<td>Not bad, but many drawbacks</td>
<td>D</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>Performance meets the minimum criteria</td>
<td>E</td>
<td>5 – 4</td>
</tr>
<tr>
<td>-</td>
<td>Needs re-taking</td>
<td>FX</td>
<td>3</td>
</tr>
<tr>
<td>-</td>
<td>Repeated study of the discipline</td>
<td>F</td>
<td>2 – 1</td>
</tr>
</tbody>
</table>
10. Recommended references

10.1. Main


10.2. Ancillary


10.3. Internet References
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EDUCATIONAL EDITION

Syllabus
of the educational discipline
"BASICS OF THE INFORMATION ECONOMY"
for students of study direction 6.030601 "Management"
for all forms of learning

Compiled by: T. Lepeyko
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Proof-reader L. Novytska

НАВЧАЛЬНЕ ВИДАННЯ
Робоча програма
навчальної дисципліни
"ОСНОВИ ІНФОРМАЦІЙНОЇ ЕКОНОМІКИ"
dля студентів напряму підготовки 6.030601 "Менеджмент"
усіх форм навчання
(англ. мовою)

Укладачі: Лепейко Тетяна Іванівна
Мазоренко Оксана Володимирівна

Відповідальний за випуск Лепейко Т. І.

Редактор Новицька Л. М.
Коректор Новицька Л. М.

План 2012 р. Поз. № 179.
Підп. до друку Формат 60 x 90 1/16. Папір MultiCopy. Друк Riso.
Ум.-друк. арк. 1,75. Обл.-вид. арк. 2,19. Тираж прим. Зам. №
Видавець і виготівник — видавництво ХНЕУ, 61166, м. Харків, пр. Леніна, 9а
Свідоцтво про внесення до Державного реєстру суб'єктів видавничої справи Дк № 481 від 13.06.2001 р.
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of the educational discipline
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