



Work Package 1 Questionnaire of stakeholders:

Specifying Graduate Competencies based MSIS Curriculum 2016

Please specify the competencies that graduates of information systems need to have.

Competency Areas and Competency Categories

1. Business Continuity and Information Assurance

- 1.1. Managing and implementing cybersecurity
- 1.2. Monitoring system operations
- 1.3 Managing system recovery
- 1.4 Managing Information Systems risks
- 1.5 Protecting IT assets
- 1.6 Developing information assurance strategy
- 1.7 Continuity engineering
- 1.8 Implementing and managing quality audit processes
- 1.9 Assuring safety throughout systems lifecycle

2. Systems Development and Deployment

- 2.1 Selecting between systems development approaches
- 2.2 Managing plan-based, hybrid, and agile development approaches
- 2.3 Specifying and documenting systems requirements
- 2.4 Implementing and testing an application
- 2.5 Designing systems
- 2.6 Installing and integrating a new application
- 2.7 Managing external systems development resources
- 2.8 Managing IS development projects

3. Data, Information and Content Management

- 3.1. Selecting appropriate data management technologies based on the needs of the domain
- 3.2. Securing domain data and protecting user privacy and organizational intellectual property using appropriate technical solutions
- 3.3. Designing and implementing a data warehouse using a contemporary architectural solution
- 3.4. Creating a scalable infrastructure for large amounts of data using parallel and distributed technologies
- 3.5. Developing and implementing organizational information management policies and processes
- 3.6. Integrating and preparing data captured from various sources for analytical use
- 3.7. Selecting and using appropriate analytics methods
- 3.8. Designing and implementing architectures for organizational content management systems

4. Ethics, Impacts and Sustainability

- 4.1. Designing and managing sustainable IT operations
- 4.2. Managing IT facilities sustainably
- 4.3. Aligning IT with organizational sustainability policy
- 4.4. Managing sustainable procurement practice
- 4.5. Managing contracts ethically
- 4.6. Maintaining compliance with legislation, regulations, and standards
- 4.7 Ensuring that protection of privacy and integrity guide all IT practices
- 4.8 Maintaining an ethical culture
- 4.9 Understanding the ethical implications of IS-related decisions

5. Enterprise Architecture

- 5. 1. Understanding enterprise architecture principles and the value it provides to businesses
- 5.2. Participating in building and maintaining an EA
- 5.3. Communicating and deploying an EA
- 5.4. Using an EA to influence IS/IT related organizational improvement projects

6. IS Strategy and Governance

- 6.1 Conducting IS strategic analysis
- 6.2 Managing IS/IT sourcing strategies
- 6.3 Engaging in IS strategic planning
- 6.4 Planning and implementing IS governance
- 6.5 Planning for and improving sustainability

7. Innovation, Organizational Change and Entrepreneurship

- 7.1. Understanding where and how to monitor the technology environment
- 7.2 Engaging in entrepreneurial thinking
- 7.3 Developing a business plan
- 7.4 Innovating by exploiting an emerging method or technology
- 7.5 Understanding how to apply creative problem solving to technology-related issues
- 7.6 Contributing to organizational development
- 7.7 Identifying opportunities for and designing process improvement
- 7.8. Analyzing and documenting business activities

8. IS Management and Operations

- 8. 1 Know and apply widely used Project Management tools and techniques
- 8.2 Managing the IS/IT function
- 8.3 Managing IS/IT staff
- 8.4 Managing IS/IT service production
- 8.5 Managing IS/IT sourcing models
- 8.6 Managing and coordinating information resources
- 8.7 Implementing relevant IT governance frameworks within the organization based on strategic guidance
- 8.8 Understanding laws and regulations directly affecting IS/IT management and operations
- 8.9 Managing IS/IT projects and programs
- 8.10 Managing IS/IT project portfolios
- 8.11 Managing software and hardware development and maintenance

9. IT Infrastructure

- 9.1 Specifying and monitoring infrastructure contracts
- 9.2 Negotiating contracts and managing infrastructure vendors
- 9.3 Управление рисками инфраструктуры
- 9.4 Designing virtualization solutions
- 9.5 Designing infrastructure solutions using external service provider(s) (cloud computing)
- 9.6 Maintaining a set of standards and policies and understand the key laws and regulations to relevant infrastructure decisions

Questionnaire of IT graduates

1. Please select 10 general competencies from the list, which is most important for employment in the organization in which you work.

1. Ability to communicate in a second (foreign) language	
2. Capacity to learn and stay up-to-date with learning	
3. Ability to communicate both orally and through the written word in first language	
4. Ability to be critical and self-critical	
5. Ability to plan and manage time	
6. Ability to act on the basis of ethical reasoning	
7. Capacity to generate new ideas (creativity)	
8. Ability to search, process and analyze information from a variety of sources	
9. Ability to work autonomously	
10. Ability to identify, propose and resolve problems	
11. Ability to apply knowledge in practical situations	
12. Ability to make reasoned decisions	
13. Ability to undertake research at an appropriate level	
14. Ability to work in a team	
15. Knowledge and understanding of the subject area and understanding of the profession	
16. Ability to motivate people and move toward common goals	
17. Commitment to conservation of the environment	
18. Ability to communicate with people who are not experts in the subject area	
19. Ability for abstract and analytical thinking, and synthesis of ideas	
20. Ability to interact constructively with others regardless of background and culture and respecting diversity	
21. Ability to design and manage projects	
22. Ability to interact with others in a constructive manner, even when dealing with difficult issues	
23. Ability to show awareness of equal opportunities and gender issues	
24. Commitment to health, well-being and safety	
25. Ability to take the initiative and to foster the spirit of entrepreneurship and intellectual curiosity	
26. Ability to evaluate and maintain the quality of work produced	
27. Ability to use information and communication technologies	
28. Commitment to tasks and responsibilities	
29. Ability to adapt to and act in new situations and cope under pressure	
30. Ability to act with social responsibility and civic awareness	
31. Ability to work in an international context	

2. Please evaluate your completed competency training. Put a mark from 1 to 5

Competence	5	4	3	2	1
Mastering the techniques of scientific work					
Mastering the ability to write scientific texts					
Individual professional and educational consulting					
Mastering Business Analysis methods					
Acquiring skills in managing IT projects					
Professional knowledge and skills in software development					
Professional knowledge and skills in the development of IS					
Acquiring the skills of system administration					
Mastering the ability to use industrial architecture in the development of IS					
Mastering software testing technology and IS					
Acquiring skills systems analyst					
Development of logical, algorithmic, systems thinking					
Ability to adapt to changes in the IT market					

3. What difficulties have you encountered in employment?

1. At my specialty sites offer little;	
2. Knowledge is required, which I do not have;	
3. Offered places does not correspond with the profile of my training;	
4. Another level of higher education required	
5. Need graduates with other specialties;	
6. Need competence, which I do not have	

4. Evaluate your professional prospects in the future? Put a ball from 1 to 5

	5	4	3	2	1
Reliability employment					
Possibility of professional conversion					

5 Select a profession for which you are working or want to work (in accordance with the list of the European framework of IT competences)

- | | |
|---|--|
| <input type="checkbox"/> Service desk agent | <input type="checkbox"/> information system developer |
| <input type="checkbox"/> technical specialist | <input type="checkbox"/> ICT operations manager |
| <input type="checkbox"/> ICT trainer | <input type="checkbox"/> ICT security specialist |
| <input type="checkbox"/> business analyst | <input type="checkbox"/> enterprise architect |
| <input type="checkbox"/> business information manager | <input type="checkbox"/> quality assurance manager |
| <input type="checkbox"/> project manager | <input type="checkbox"/> chief information officer (CIO) |
| <input type="checkbox"/> ICT consultant | <input type="checkbox"/> network specialist |
| <input type="checkbox"/> digital media specialist | <input type="checkbox"/> database administrator |
| <input type="checkbox"/> test specialist | <input type="checkbox"/> systems analyst |
| <input type="checkbox"/> software developer | <input type="checkbox"/> service manager |
| <input type="checkbox"/> systems architect | <input type="checkbox"/> ICT security manager |
| <input type="checkbox"/> systems administrator | <input type="checkbox"/> account manager |

6 How did you describe the place of labor activity and your work environment?

- I work above projects
- Specialists of different profiles are in collective, which I work in
- I regularly co-operate with colleagues which have other profile of preparation
- My work is often estimated
- Success is acknowledged
- I count on own forces at the decision of problem
- An innovative climate dominates
- I must think wider than scopes of my specialty often
- My initiative is valued
- My tasks change often
- I have possibility to make decision in my sphere of activity
- My work requires loneliness
- My work is good time certain
- I organize my work Independent
- My work is related to international cooperation
- My suggestions on perfection in earnest are checked up
- I need a foreign language in everyday work
- A large value gets to further preparation and in-plant training
- A co-operative atmosphere dominates

7 Do you work in accordance with Your qualification? Choose one variant

From the point of view of professional position	Yes	No	It is difficult to answer
From the point of view of executable tasks	Yes	No	It is difficult to answer
From the point of view of professional qualification	Yes	No	It is difficult to answer
From the point of view of direction, specialty of preparation	Yes	No	It is difficult to answer

8 What segment of IT of industry do you work in?

- IT outsourcing
- IT outstafing
- Offshore programming,
- Local Ukrainian IT labor market
- Games technologies
- IT service,
- Sale of computer technics
- Kibersecurity
- Other product startup