3. Educational program.

Digital Economics (Bachelor's degree) - the educational program director - Ivanova O.M., PhD in Economics, Associate Professor, Associate Professor of Digital Economics and Systems Analysis.

3.1 Profile of the educational program in the subject area 051 "Economics"

1 – General information	
Full name of HEI and structural subdivision	State University of Trade and Economics, Faculty of Information Technology, Department of Digital Economics and Systems Analysis
Higher education degree and title of qualification in the original language	Bachelor's degree Subject Area "Economics"
Official name of the educational program	"Digital Economics"
Conformity to the standard of higher education of the Ministry of Education and Science of Ukraine	The SVO of the Ministry of Education and Science of Ukraine is in charge
Type of diploma and scope of educational program	Bachelor's degree, single, 240 ECTS credits, term of study 3 years 10 months
Availability of accreditation	Primary accreditation is scheduled for 2026
Cycle / level	NRC of Ukraine - level 6, FQ-EHEA - first cycle, EQF-LLL - level 6
Prerequisites	Availability of complete general secondary education
Language (s) of teaching	Ukrainian
The term of validity of the educational program	4 years
Internet address of the permanent placement of the educational program description	https://knute.edu.ua
2 – Purpose of educational program	
Training of bachelors in digital economics, able on the basis of mastering basic economic concepts, digital technologies, principles of modeling and creation of information systems to carry out professional activities aimed at building models of economic objects and processes, their research and analysis to make effective business decisions.	
3 - Characteristics of educational program	
Subject area	***Object of study and/or activity:*** patterns of functioning and development of socio-economic systems, socio-economic processes,

<table>
<tr><td></td><td>their modeling, forecasting and regulation, motivation and behavior of economic subjects.
Learning goals: training specialists who possess modern economic thinking, theoretical knowledge and practical skills necessary for solving the tasks of the subject area.
Theoretical content of the subject area: concepts, categories, concepts, principles of economic sciences.
Methods, techniques and technologies: general scientific methods of cognition and research activity, mathematical and statistical methods of economic analysis, economic and mathematical modeling, information and communication technologies of research, dissemination and presentation of research results.
Tools and equipment: modern information and communication equipment, information systems and software products used in professional activities.</td></tr>
<tr><td>Orientation of educational program</td><td>Educational and professional. Emphasis on the study of real economic processes in the digital space in compliance with the principles of building mathematical models and the use of information systems and their practical implementation.</td></tr>
<tr><td>Main focus of educational program</td><td>Special education in economics with the use of economic and mathematical modeling and digital technologies in economics.
Keywords: economic systems, economic processes, digital systems, digital technologies, mathematical modeling, mathematical methods, information systems, information technologies, decision making, forecasting, management, digital infrastructure, digital space.</td></tr>
<tr><td>Program features</td><td>Professional and practical training involves the study of educational components that will allow mastering the theoretical knowledge and practical skills of modeling and information management of economic systems in the digital space.</td></tr>
<tr><td colspan="2">4 – Suitability of graduates to employment and further training</td></tr>
<tr><td>Suitability for employment</td><td>The field of professional activity of graduates is the study of objects and processes of the digital economy by building and analyzing economic models and their information support.
The list of economic activities that a bachelor in digital economics is able to perform:

<table>
<tr><td>Code of CTEA SC 009:2010</td><td>Name of the type of economic activity</td></tr>
<tr><td>62.02</td><td>Consulting on informatization</td></tr>
<tr><td>63.11</td><td>Data processing, posting of information on web sites and related activities</td></tr>
<tr><td>63.12</td><td>Web portals</td></tr>
</table>
Bachelor of Digital Economics positions:
<table>
<tr><td>Code of SC 003:2010</td><td>Profession name</td></tr>
<tr><td>1226.2</td><td>Head of structural unit (information protection)</td></tr>
<tr><td>2131.1</td><td>Researcher-consultant (computer systems)</td></tr>
<tr><td>2131.2</td><td>Computer Communications Analyst</td></tr>
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<tr><td>2131.2</td><td>Computer systems analyst</td></tr>
<tr><td>2139.2</td><td>Computer application engineer</td></tr>
<tr><td>2139.2</td><td>Information Technology Management Expert</td></tr>
<tr><td>2419.2</td><td>Specialist in economic modeling of ecological systems</td></tr>
<tr><td>2433.1</td><td>Researcher-consultant (information analytics)</td></tr>
<tr><td>2441.2</td><td>Economist of the computer (information and computing) center</td></tr>
<tr><td>3121</td><td>Information technology specialist</td></tr>
</table>

With the acquisition of relevant experience he can adapt to the following areas of related professional activities: marketing, foreign economic, educational, research.
</td></tr>
<tr><td>Further training</td><td>Opportunity to study for a master's degree in the educational-professional program "Digital Economics" or educational-professional programs in related fields, as well as to improve their skills and receive additional postgraduate education.</td></tr>
<tr><td colspan="2">5 – Teaching and assessment</td></tr>
<tr><td>Teaching and learning</td><td>Problem-oriented learning, self-learning, learning through practical training.</td></tr>
<tr><td>Evaluation</td><td>Current control, written exams, certification. Evaluation is carried out in accordance with the "Regulations on the assessment of learning outcomes of students and graduate students of SUTE", "Regulations on the organization of the educational process of students"</td></tr>
<tr><td colspan="2">6 – Program competencies</td></tr>
<tr><td>Integral competence</td><td>The ability to solve complex specialized tasks and practical problems in the economic sphere, which are characterized by the complexity and uncertainty of conditions, which involves the application of theories and methods of economic science, digital and information technologies.</td></tr>
<tr><td>General competencies (GC)</td><td>GC1. Ability to exercise one's rights and responsibilities as a member of society, to realize the values of civil (democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
GC2. Ability to preserve moral, cultural, scientific values and increase the achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology, use different types and forms of physical activity rest and lead a healthy lifestyle.
GC3. Ability to abstract thinking, analysis and synthesis.
GC4. Ability to apply knowledge in practical situations.
GC5. Ability to communicate in the state language both orally and in writing.
GC6. Ability to communicate in a foreign language.
GC7.Skills of information and communication technologies.
GC8. Ability to search, process and analyze information from various sources.
GC9.Ability to adapt and act in a new situation.
GC10. Ability to be critical and self-critical.</td></tr>
</table>

	GC11. Ability to make informed decisions. GC12. Interpersonal skills. GC13. Ability to act socially responsibly and consciously.
Special (professional, subject) competencies (SC)	SC1. Ability to show knowledge and understanding of the problems of the subject area, the basics of the modern economy at the micro, meso, macro and international levels. SC2. Ability to carry out professional activities in accordance with applicable regulations and legal acts. SC3.Understanding the features of leading scientific schools and areas of economics. SC4. Ability to explain economic and social processes and phenomena on the basis of theoretical models, analyze and interpret the results. SC5. Understanding the features of the modern world and national economy, their institutional structure, justification of social, economic and foreign economic policy. SC6. Ability to apply economic-mathematical methods and models to solve economic problems. SC7. Ability to use computer technology and data processing software to solve economic problems, analyze information and prepare analytical reports. SC8. Ability to analyze and solve problems in the field of economic and social relations. SC9.Ability to predict on the basis of standard theoretical and econometric models of socio-economic processes. SC10. Ability to use modern sources of economic, social, managerial, accounting information for the preparation of official documents and analytical reports. SC11. Ability to substantiate economic decisions based on understanding the laws of economic systems and processes and using modern methodological tools. SC12. Ability to identify problems of an economic nature independently in the analysis of specific situations, to suggest ways to solve them. SC13. Ability to conduct economic analysis of the functioning and development of economic entities, assessment of their competitiveness. SC14. Ability to analyze in depth the problems and phenomena in one or more professional areas, taking into account economic risks and possible socio-economic consequences. *SC 15. Ability to operate information systems and application software in the economic sphere.* *SC 16. Ability to design the technological process of collecting, processing and storing economic information.*

	SC 17. Ability to model economic and business processes, systems, phenomena, using the apparatus of mathematical and computer modeling.
7 – Program learning outcomes	
	1. To associate yourself as a member of civil society, the scientific community, recognize the rule of law, in particular in professional activities, understand and be able to exercise their rights and freedoms, show respect for the rights and freedoms of others, including members of the team. 2. To reproduce moral, cultural, scientific values, to increase the achievements of society in the socio-economic sphere, to promote a healthy lifestyle. 3. To know and use economic terminology, explain the basic concepts of micro-and macroeconomics, 4. To understand the principles of economic science, features of economic systems. 5. To apply analytical and methodological tools to substantiate proposals and make management decisions by various economic agents (individuals, households, enterprises and public authorities). 6. To use professional arguments to convey information, ideas, problems and ways to solve them to specialists and non-specialists in the field of economic activity. 7. To explain the models of socio-economic phenomena in terms of fundamental principles and knowledge based on understanding the main directions of economic science. 8. To apply appropriate economic and mathematical methods and models to solve economic problems. 9. To understand the main features of the modern world and national economy, institutional structure, areas of social, economic and foreign economic policy of the state. 10. To analyze the functioning and development of economic entities, to determine the functional areas, to calculate the relevant indicators that characterize the effectiveness of their activities. 11. To be able to analyze the processes of state and market regulation of socio-economic and labor relations. 12. To apply the acquired theoretical knowledge to solve practical problems and meaningfully interpret the results. 13. To identify sources and understand the methodology for determining and methods of obtaining socio-economic data, collect and analyze the necessary information, calculate economic and social indicators. 14. To identify and plan opportunities for personal professional development. 15. To demonstrate basic skills of creative and critical thinking in research and professional communication. 16. To be able to use data, provide arguments, evaluate logic critically and draw conclusions from scientific and analytical texts on economics. 17. To perform interdisciplinary analysis of socio-economic phenomena and problems in one or more professional areas, taking into account the risks and possible socio-economic consequences.

	18. To use normative and legal acts regulating professional activity. 19. To use information and communication technologies to solve socio-economic problems, prepare and present analytical reports. 20. To master the skills of oral and written professional communication in state and foreign languages. 21. To be able to think abstractly, apply analysis and synthesis to identify key characteristics of economic systems at different levels, as well as the behavior of their subjects. 22. To demonstrate flexibility and adaptability in new situations, in working with new objects, and in uncertain conditions. 23. To demonstrate skills of independent work, demonstrate critical, creative, self-critical thinking. 24. To demonstrate the ability to act socially responsibly and consciously on the basis of ethical principles, to value and respect cultural diversity, individual differences. *25. To demonstrate a solid understanding of the peculiarities of the functioning of economic systems in the digital space.* *26. To carry out programming using tools in different software environments.* *27. To model decision-making processes in conditions of uncertainty.* *28. To develop models of business processes (organizational, functional, information and management models).* *29. To develop and research economic and mathematical models of economic objects and systems in order to analyze them and improve the management system.*
8 – Resource support for program implementation	
Staffing	Professionals who train bachelors in the Digital Economics educational program must have professional knowledge and professional skills in the field of mathematical modeling and (or) modern information technology. The participation of foreign specialists and practitioners is possible in the teaching of disciplines of the training cycle.
Material and technical provision	The basis of material and technical support are computer laboratories with modern hardware and software resources that provide quality training for bachelors in the educational program "Digital Economics".
Information and educational and methodical support	General scientific and special sources of information on the digital economy, educational and methodological and monographic literature, information resources of the distance learning system and the Internet.
9 – Academic mobility	
National credit mobility	National credit mobility is carried out in accordance with the concluded agreements on academic mobility.
International credit mobility	International credit mobility is realized through the conclusion of agreements on international academic mobility (Erasmus +), double graduation, long-term international projects involving student education, double degree, etc.
Training of foreign students	Conditions and features of the educational program in the context of teaching foreign citizens: knowledge of the Ukrainian language at a level not lower than B1.

3.2 List of components of the educational program and their logical sequence

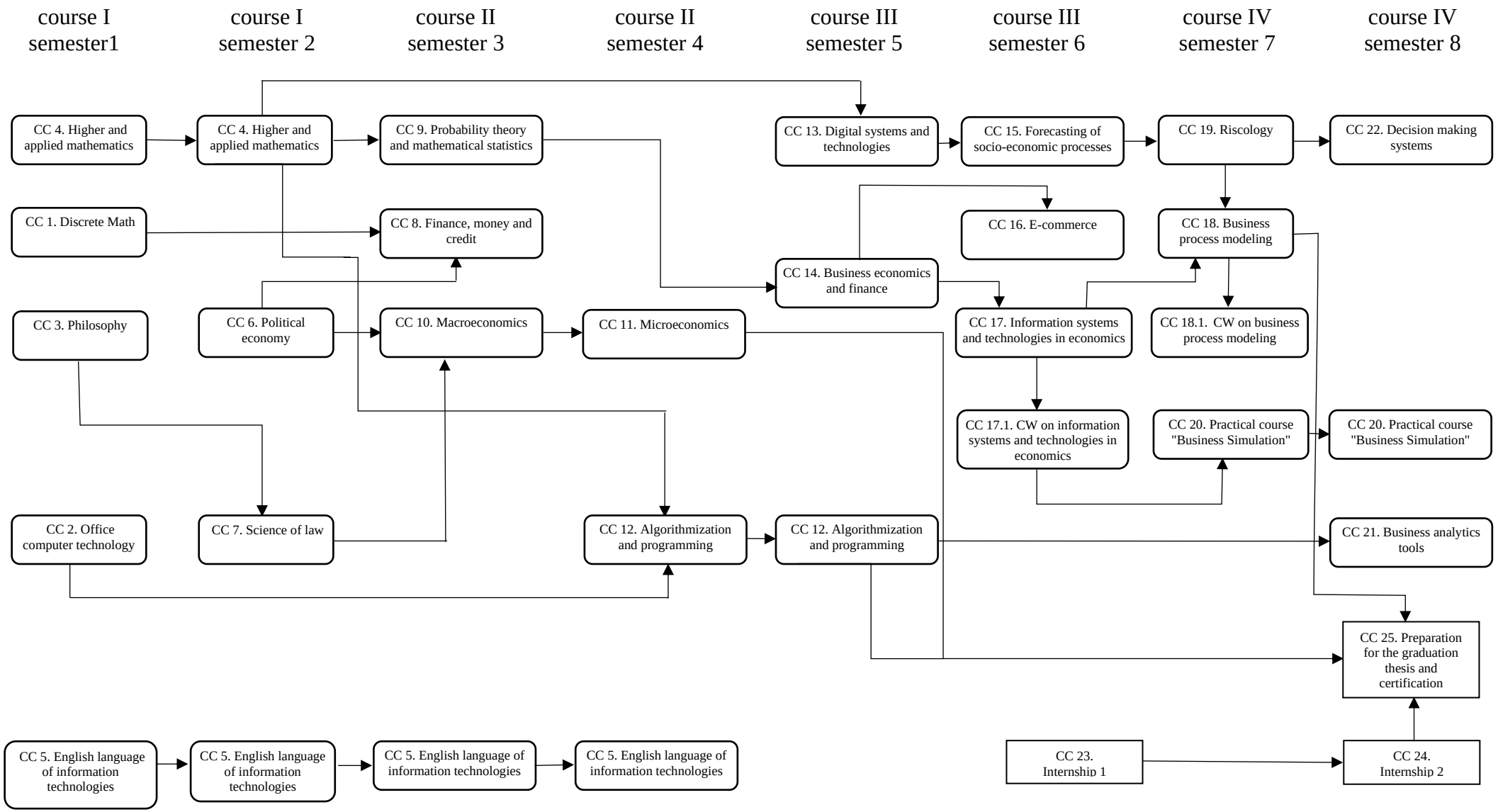
3.2.1. List of EP components

Code of Discipline	Components of educational program (academic disciplines, course projects (works), practices, qualifying exam, graduation thesis)	Number of credits
Compulsory components of the educational program		
CC 1	Discrete Math	6
CC 2	Office computer technology	6
CC 3	Philosophy	6
CC 4	Higher and applied mathematics	12
CC 5	English language of information technologies	24
CC 6	Political economy	6
CC 7	Science of law	6
CC 8	Finance, money and credit	6
CC 9	Probability theory and mathematical statistics	6
CC10	Macroeconomics	6
CC 11	Microeconomics	6
CC 12	Algorithmization and programming	12
CC 13	Digital systems and technologies	6
CC 14	Business economics and finance	6
CC 15	Forecasting of socio-economic processes	9
CC 16	E-commerce	6
CC 17	Information systems and technologies in economics	6
CC17.1	CW on information systems and technologies in economics	
CC 18	Business process modeling	6
CC18.1	CW on business process modeling	
CC 19	Riscology	6
CC 20	Practical course "Business Simulation"	9
CC 21	Business analytics tools	6
CC 22	Decision making systems	6
CC 23	Internship 1	3
CC 24	Internship 2	6
CC 25	Preparation for the graduation thesis and certification	3
Total amount of compulsory components:		**180**
Elective components of the educational program		
EC1	Analysis of financial markets	6
EC2	Life safety	6
EC3	Business planning	6
EC4	Business technology	6
EC5	Accounting	6
EC6	Economy and organization of the information services market	6
EC7	Economic analysis	6
EC8	Electronic governance	6
EC9	Electronic document management	6

EC10	Simulation modeling	6
EC11	Instrumental means of applied programming	6
EC12	Intellectual Property	6
EC13	Internet technologies in business	6
EC14	Informational law	6
EC15	Information wars	6
EC16	History of Ukraine	6
EC17	History of Ukrainian Culture	6
EC18	Cross-platform programming	6
EC19	Cultural heritage of Ukraine	6
EC20	Machine learning	6
EC21	Management	6
EC22	International Economics	6
EC23	International Economic Relations	6
EC24	National interests in world geopolitics and geoeconomics	6
EC25	Public speaking	6
EC26	Organization of computer networks	6
EC27	Fundamentals of cyber security	6
EC28	Payment systems	6
EC29	Psychology	6
EC30	Religious studies	6
EC31	World culture	6
EC32	Business analytics systems in international business	6
EC33	Digital marketing technologies	6
EC34	Design and administration technology of databases and data warehouses	6
EC35	Technology for creating distributed databases and knowledge	6
EC36	Ukrainian language (for specific purposes)	6
EC37	Management of innovations	6
EC38	Financial Services	6
EC39	Cloud and GRID technologies	6
EC40	Digital technologies in business	6
EC41	Web application development technologies	6
Total amount of elective components:		**60**
TOTAL VOLUME OF EDUCATIONAL PROGRAM		**240**

For all components of educational program, the form of final control is an exam

3.2.2. Structural and logical scheme of EP



3. Form of certification of the students

Certification is carried out in the form of a qualifying exam. The qualification examination in the specialty must check the achievement of learning outcomes defined by the Standard of Higher Education and this educational program.

4.1. Matrix of correspondence of program competencies to compulsory components of the educational program

Components Competences	CC 1	CC 2	CC 3	CC 4	CC 5	CC 6	CC 7	CC 8	CC 9	CC 10	CC 11	CC 12	CC 13	CC 14	CC 15	CC 16	CC 17	CC 17.1	CC 18	CC 18.1	CC 19	CC 20	CC 12	CC 22	CC 23	CC 24	CC 25
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GC2.			+																								
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GC11.							+														+	+		+			
GC12.			+		+		+																	+			
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SC6.		+		+											+				+		+	+	+	+	+	+	+
SC7.		+										+	+		+	+	+	+	+	+		+	+	+	+	+	+
SC8.						+				+	+			+		+									+	+	+
SC9.		+													+							+			+	+	+
SC10.		+												+											+	+	+
SC11.						+		+		+	+			+	+	+	+	+				+		+	+	+	+
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SC16		+														+	+	+				+	+		+	+	+
SC17															+				+	+	+	+		+	+	+	+

4.2. Matrix of correspondence of program competencies to elective components of the educational program

Compo-nents / Competences	EC 1	EC 2	EC 3	EC 4	EC 5	EC 6	EC 7	EC 8	EC 9	EC 10	EC 11	EC 12	EC 13	EC 14	EC 15	EC 16	EC 17	EC 18	EC 19	EC 20	EC 21	EC 22	EC 23	EC 24	EC 25	EC 26	EC 27	EC 28	EC 29	EC 30	EC 31	EC 32	EC 33	EC 34	EC 35	EC 36	EC 37	EC 38	EC 39	EC 40	EC 41
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SC17										+	+									+												+								

4.3. Matrix of providing program learning outcomes with relevant compulsory components of the educational program

Components / Program Learning outcomes	CC 1	CC 2	CC 3	CC 4	CC 5	CC 6	CC 7	CC 8	CC 9	CC 10	CC 11	CC 12	CC 13	CC 14	CC 15	CC 16	CC 17	CC 17.1	CC 18	CC 18.1	CC 19	CC 20	CC 21	CC 22	CC 23	CC 24	CC 25
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4.4. Matrix of providing program learning outcomes with relevant elective components of the educational program

Compo-nents / Program Learning outcoms	EC 1	EC 2	EC 3	EC 4	EC 5	EC 6	EC 7	EC 8	EC 9	EC 10	EC 11	EC 12	EC 13	EC 14	EC 15	EC 16	EC 17	EC 18	EC 19	EC 20	EC 21	EC 22	EC 23	EC 24	EC 25	EC 26	EC 27	EC 28	EC 29	EC 30	EC 31	EC 32	EC 33	EC 34	EC 35	EC 36	EC 37	EC 38	EC 39	EC 40	EC 41
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Change registration sheet

№ ord.	Date	Items to be amended	Initiator of change	Surname, initials of the person responsible for making changes	Signature