

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY OF UKRAINE
"Ihor Sikorsky Kyiv Polytechnic Institute"



**ТЕХНОЛОГІЇ
ДРУКОВАНИХ І ЕЛЕКТРОННИХ ВИДАНЬ**

**TECHNOLOGIES
OF PRINTED AND ELECTRONIC EDITIONS**

EDUCATIONAL AND PROFESSIONAL PROGRAM

second (master's) level of higher education

specialty **186 Publishing and printing**
fields of knowledge **18 Production and technologies**
qualification **Master of publishing and printing**

Введено в дію 2022/2023 навч. року
наказом ректора
КПІ ім. Ігоря Сікорського
від 15.02 2022 р. № МОН/83/2022

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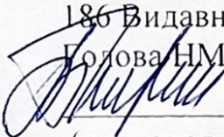
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ПОГОДЖЕНО:

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186 Видавництво та поліграфія

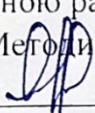
Голова НМКУ 186

 Тетяна КИРИЧОК

(протокол № 4 від «25» 11 2021 р.)

Методичною радою КПІ ім. Ігоря Сікорського

Голова Методичної ради

 Юрій ЯКИМЕНКО

(протокол № 2 від 09.12. 2021 р.)

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1. EDUCATIONAL PROGRAM PROFILE

Specialty 186 Publishing and printing

1 – General information	
Full name of higher education institution and institute/faculty	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Educational and scientific publishing and printing institute
The degree of higher education and the title of the qualification in the original language	The degree is a Master Qualification – Master of publishing and printing
HE cycle/level	NRK of Ukraine - 7th level QF-EHEA – the second cycle EQF-LLL – level 7
The official name of the educational program	Technologies of printed and electronic editions
Type of diploma and scope of the educational program	Master's degree, single, 90 credits, term of study 1 year, 4 months
Availability of accreditation	Specialty accreditation certificate HД 1192640, valid until July 1, 2024
Prerequisites	Having a Bachelor's degree
Language(s) of instruction	Ukrainian
The term of validity of the educational program	Until the next accreditation
Internet address of the permanent placement of the educational program	http://vpi.kpi.ua http://osvita.kpi.ua/186
2 – The purpose of the educational program	
The purpose of the educational program is to train highly qualified specialists capable of creating modern scientific knowledge and innovative technologies, capable of organizing and conducting research, as well as capable of solving complex tasks and problems in the field of publishing and printing and their applications in various fields of science and technology. that will make a significant contribution to ensuring the sustainable development of society through the internationalization and integration of education, the latest scientific research and innovative developments.	

3 – Characteristics of the educational program	
Description of the subject area	<p><i>Objects of study and activity:</i> printed and electronic editions, packaging, multimedia information products and other types of publishing and printing products; processes of processing, registration, formation, reproduction, storage of text, graphics, sound, video and other multimedia information; research, improvement, creation, manufacture, distribution of publishing and printing products.</p> <p><i>Learning goals:</i> training of specialists capable of solving tasks of a research and/or innovative nature in the field of publishing and printing, which are characterized by complexity and uncertainty of conditions.</p> <p><i>Theoretical content of the subject area:</i> concepts, concepts, principles: publishing processing of various types of information; development and implementation of technological processes; design and organization of production; creation and improvement of all types of publishing and printing products.</p> <p><i>Methods, means and technologies:</i> methods of design, manufacture, testing, control of all types of publishing and printing products; methods of calculation, design and implementation of technological processes. <i>Tools and equipment:</i> materials, hardware and software complexes, control equipment, design and simulation of technological processes and all types of publishing and printing products; means of technological, informational, instrumental, metrological, diagnostic and organizational production support.</p>
Orientation of the educational program	Educational and professional
The main focus of the educational program	<p>Special education for production and innovation activity in publishing houses, printing enterprises, publishing and printing complexes, centers and advertising agencies, and other production associations for producing printed, electronic, multimedia, combined editions, and packaging, including the conducting research, improvement, and modernization of their processes, means, and methods of creation, processing, printing, and design.</p> <p><i>Keywords:</i> publishing and printing, technological processes, multimedia, text processing, image processing and transformation, prepress processes, printing processes, production processes, production, publishing, packaging), printing materials, computer simulation, research.</p>
Features of the program	<p>Thorough fundamental training combined with modern professional training, which allows for innovative activities and work with leading institutions in the field of publishing and printing, as well as the implementation of the program involves the involvement of practicing professionals, industry experts, and employer representatives in classroom classes. Pre-diploma practice and defence of a master's thesis are provided.</p> <p>The list of components of the educational program is consistent with the list of educational components of the programs of the countries that conduct training in the relevant specialty (Institute of Papermaking and Printing of the Łódź Polytechnic, Institute of Mechanics and Printing of the Warsaw Polytechnic, Institute of Printing and Media Technologies of the Leipzig University of Culture and Arts and others, which together with the Publishing printing institute to the International circle of higher primary institutions that train specialists in publishing and printing production).</p>
4 – Graduates' suitability for employment and further education	
Suitability for employment	Types of economic activity (according to the Classifier of types of economic activity DK 003:2010): 2149.2 – research engineer; 2149.2 – technological engineer; 2149.2 – technologist (publishing and printing production), technologist of electronic multimedia publications, technologist-publisher; 2452.2 – designer of multimedia objects, designer of packaging

Further education	Continuation of studies at the third (educational and scientific) level of higher education and/or acquisition of additional qualifications in the postgraduate education system
5 – Teaching and assessment	
Teaching and learning	Lectures, practical and seminar classes, computer workshops and laboratory works; course projects and works; the technology of mixed learning, practice and excursions; execution of a master's thesis.
Assessment	Assessment of students' knowledge is carried out in accordance with the Regulation on the system of assessment of learning outcomes at KPI named after Igor Sikorsky for all types of classroom and extracurricular work (current, calendar, semester control); oral and written exams, tests
6 – Programme's competencies	
Integral competence	The ability to solve complex tasks of a research and/or innovative nature in the field of publishing and printing.
General competences (GC)	
GC 1	Ability to apply knowledge in practical situations.
GC 2	Ability to generate new ideas (creativity).
GC 3	Ability to communicate in a foreign language.
GC 4	Ability to search process and analyse information from various sources.
GC 5	Ability to develop and manage projects.
GC 6	Ability to make informed decisions.
GC 7	The ability to evaluate and ensure the quality of the work performed
GC 8	Ability to abstract thinking, analysis and synthesis.
Special (professional, subject) competences (PC)	
PC 1	The ability to comprehensively evaluate the influence of the environment of the functioning of technological and production processes for the improvement of product parameters.
PC 2	The ability to critically consider the problems of publishing and printing and at the border of the fields of knowledge, as well as promising directions of the industry's development.
PC 3	The ability to determine the main functions and areas of improvement of production support, to develop measures of operational and prospective management, forecasting and planning of production.
PC 4	The ability to organize the operation of technical and software means of publishing processing of information and materials, to analyse and evaluate the possibilities of adapting technological complexes for effective use during the preparation of all types of publishing and printing products in a specific production system
PC 5	The ability to develop and implement new technological processes, in particular resource- and energy-saving technologies, and types of products in the field of publishing and printing, to optimize production processes in accordance with the requirements.
PC 6	Ability to organize activities and effectively manage institutions/units in the field of publishing and printing.
PC 7	Ability to apply modern methods and tools for research in the field of publishing and printing, as well as product quality assurance.
PC 8	The ability to develop and implement scientific and applied projects in the field of publishing and printing and related interdisciplinary areas, taking into account technical, economic, social, legal and environmental aspects.
PC 9	Ability to develop on the basis of interdisciplinary approaches technological processes of production of printed products protected from forgery.
PC 10	The ability to comprehensively evaluate the effectiveness of technological processes of printing production, to investigate the causes of problems, to develop and implement measures to eliminate them.
PC 11	The ability to develop economically justified development plans for enterprises in the printing industry, technological processes for the production of printed and electronic editions.

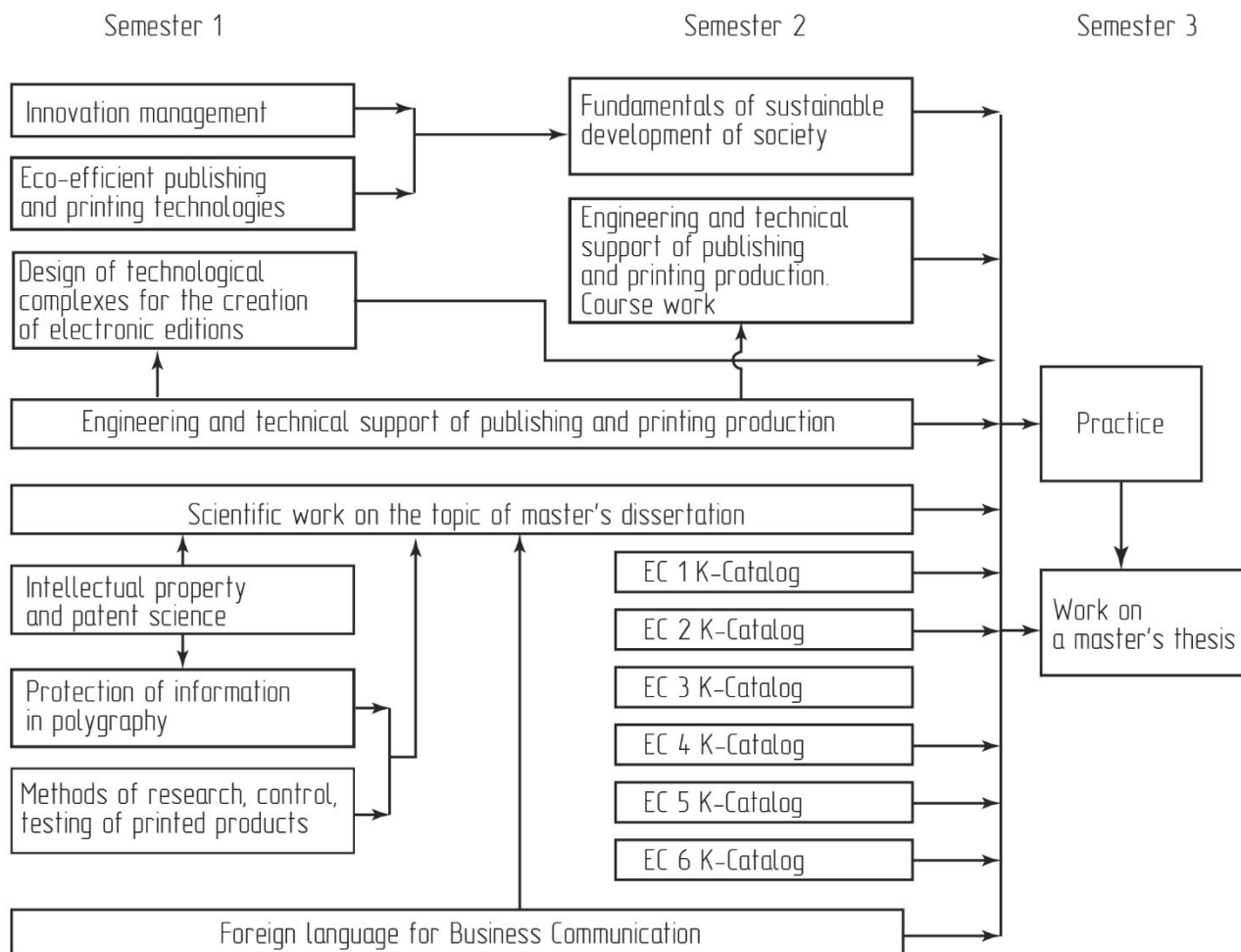
7 – Program’s learning outcomes	
PO 1	To be responsible for the development of professional knowledge and practices, evaluation of the strategic development of the team, formation of an effective personnel policy
PO 2	Assess prospects, create scientifically and technically sound forecasts, research and carry out conceptual and substantive simulation of trends in the development of the industry.
PO 3	Make effective decisions on issues of publishing and printing, including in difficult and unpredictable conditions; predict their development and market conditions; determine the factors affecting the achievement of set goals, in particular, consumer requirements; analyse and compare alternatives; assess risks and likely consequences of decisions.
PO 4	Communicate freely orally and in writing in Ukrainian and one of the foreign languages (English, German, Italian, French, Spanish) when discussing professional issues, research and innovations in the field of publishing and printing and related problems.
PO 5	To develop and implement projects of publishing and printing productions and systems of their engineering and technical support, taking into account engineering, legal, economic, ecological and social aspects, to carry out their informational and methodical support.
PO 6	Manage complex activities in the field of publishing and printing, organize and improve the activities of publishing and printing industries, develop plans and measures for their implementation, ensure quality, and calculate the technical and economic efficiency of production.
PO 7	Carry out computer design of individual components of the technological process.
PO 8	Develop and implement effective technologies, develop instructions and technological regulations for the production of publishing and printing products.
PO 9	Conduct research and/or conduct innovative activities in order to obtain new knowledge and create new technologies and products in the field of publishing and printing and in wider multidisciplinary contexts
PO 10	Build and research models of technological processes of publishing and printing, evaluate their adequacy, determine the limits of applicability.
PO 11	Apply modern experimental and mathematical methods, information technologies and specialized software for research and development in the field of publishing and printing.
PO 12	Search for necessary data in scientific literature, databases and other sources, analyse and evaluate these data.
PO 13	To use knowledge of national and international legislation regarding the protection and preservation of copyrights in the production of printed and electronic publications, packaging, multimedia information products and other types of publishing and printing products in practical activities.
PO 14	Develop technological processes for the protection of securities and documents of strict accounting, as well as other printed products using interdisciplinary approaches.
PO 15	Plan and optimize technological processes of production of printed and electronic editions.
PO 16	Model the processes of all stages of preparation, development and production of printed and electronic editions.
8 – Resource support for program implementation	
Staffing	In accordance with the personnel requirements for ensuring the implementation of educational activities for the corresponding level of HE, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 12.30.2015 No. 1187 as amended. Practitioners from publishing and printing organizations and printing houses will be involved in teaching individual disciplines.

Logistics	<p>In accordance with the technological requirements for the material and technical support of educational activities of the corresponding level of HE, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 12.30.2015 No. 1187 as amended.</p> <p>The use of special hardware and software, capabilities of laboratories, which will ensure quality training at the appropriate technical level, is foreseen. A remote option for obtaining information and interacting with teachers is provided.</p>
Informational and educational and methodological support	<p>In accordance with the technological requirements for educational, methodological and informational support of educational activities of the corresponding level of HE, approved by Resolution of the Cabinet of Ministers of Ukraine dated 12.30.2015 No. 1187 as amended.</p> <p>Scientific works in the field of publishing and printing, materials on specialized portals, resources using cloud services, webinars, presentations, articles in professional publications, and use of the KPI library are used during teaching.</p>
9 – Academic mobility	
National credit mobility	Possibility of academic mobility, double graduation
International credit mobility	The possibility of international academic mobility, double graduation, included student training (Institute of Papermaking and Printing of the Łódź Polytechnic, Institute of Mechanics and Printing of the Warsaw Polytechnic, Leipzig University of Applied Sciences and others, which together with the Publishing and Printing Institute are part of the International circle of higher primary institutions that prepare specialists in publishing and printing production), as well as other higher education institutions under the Erasmus+ program and other programs of KPI named after Igor Sikorsky.
Training of foreign applicants for higher education	It takes place in academic groups on a general basis, or in separate groups of foreign students.

2. LIST OF COMPONENTS THE EDUCATIONAL PROGRAM (CURRICULUM)

Discipline code	Components of the educational program (disciplines, practices, qualification work)	ECTS amount	Form of final control
1. NORMATIVE educational components			
1.1. General training cycle			
GT 1	Intellectual property and patent science	3	Final test
GT 2	Foreign language for Business Communication	3	Final test
GT 3	Fundamentals of sustainable development of society	2	Final test
GT 4	Innovation management	3	Final test
1.2. Professional training cycle			
PT 1	Engineering and technical support of publishing and printing production	8,5	
PT 1.1	Engineering and technical support of publishing and printing production. Part 1. Production infrastructure design	5	Exam
PT 1.2	Engineering and technical support of publishing and printing production. Part 2. Implementation of project	3,5	Exam
PT 2	Engineering and technical support of publishing and printing production. Project	1	Final test
PT 3	Design of technological complexes for the creation of electronic editions	3	Final test
PT 4	Protection of information in printing	4,5	Exam
PT 5	Eco-efficient publishing and printing technologies	4	Final test
PT 6	Methods of research, control, testing of printed products	4	Exam
PT 7	Scientific work on the topic of master's dissertation	4	
PT 7.1	Scientific work on the topic of master's dissertation. Part 1. Basics of the scientific research	2	Final test
PT 7.2	Scientific work on the topic of master's dissertation. Part 2. Research work on the topic of master's dissertation	2	Final test
PT 8	Practice	14	Final test
PT 9	Work on a master's thesis	12	Defense
2. ELECTIVE educational components			
PE 1	Educational component 1 K-Catalog	4	Final test
PE 2	Educational component 2 K-Catalog	4	Final test
PE 3	Educational component 3 K-Catalog	4	Final test
PE 4	Educational component 4 K-Catalog	4	Final test
PE 5	Educational component 5 K-Catalog	4	Final test
PE 6	Educational component 6 K-Catalog	4	Final test
Total of NORMATIVE educational components			66
Total of ELECTIVE educational components			24
The amount educational components that ensure the acquisition of competencies defined by the standard of higher education			61,5
TOTAL			90

3. STRUCTURAL AND LOGICAL SCHEME OF THE EDUCATIONAL PROGRAM



4. FORM OF CERTIFICATION OF HIGHER EDUCATION ACCESSORIES

Attestation of students of higher education in the educational and professional program "Technology of printed and electronic editions" specialty 186 Publishing and printing is carried out in the form of a public defense (demonstration) of a qualifying work - a master's thesis. The qualifying work is checked for plagiarism and after protection is placed in the Library's repository of the University for free access. Attestation is carried out openly and publicly. The attestation ends with the issuance to the recipient of a document of the prescribed format awarding him a master's degree with the qualification: master's degree in publishing and printing, under the educational and professional program "Technologies of printed and electronic editions".

5. MATRIX OF CORRESPONDENCE OF PROGRAM COMPETENCES TO THE COMPONENTS OF THE EDUCATIONAL PROGRAM

	GT 1	GT 2	GT 3	GT 4	PT1	PT 2	PT 3	PT 4	PT 5	PT 6	PT 7	PT 8	PT 9
GC 1						+					+	+	
GC 2	+			+		+					+		
GC 3		+											
GC 4	+	+									+	+	
GC 5				+	+								+
GC 6			+	+	+						+	+	+
GC 7										+	+	+	+
GC 8	+										+		+
PC 1							+		+	+	+		+
PC 2			+		+	+			+				
PC 3				+	+	+	+						
PC 4					+	+	+		+	+	+	+	
PC 5				+	+	+					+		
PC 6				+	+							+	
PC 7										+		+	+
PC 8	+		+	+	+	+	+		+	+	+	+	+
PC 9								+				+	+
PC 10								+			+		
PC 11							+			+	+		

6. MATRIX OF PROVIDING PROGRAM LEARNING RESULTS WITH RELEVANT COMPONENTS OF THE EDUCATIONAL PROGRAM

	GT 1	GT 2	GT 3	GT 4	PT1	PT 2	PT 3	PT 4	PT 5	PT 6	PT 7	PT 8	PT 9
PO 1				+	+								
PO 2			+		+								
PO 3				+	+				+	+	+	+	+
PO 4		+											
PO 5					+	+	+		+				+
PO 6				+	+	+				+		+	
PO 7					+	+	+				+		
PO 8					+	+			+			+	
PO 9				+							+		+
PO 10											+	+	+
PO 11										+	+		
PO 12	+										+		+
PO 13	+										+	+	
PO 14	+							+					
PO 15								+			+		
PO 16							+			+	+		+