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INFORMATION PACKAGE

EDUCATIONAL AND
RESEARCH INSTITUTE OF
PRINTING AND PUBLISHING

**Kyiv, 2022** 

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\*\*\* Information is current as for the 2021/2022 academic year. Next academic year, there may be minor changes in the list of specialties and educational programs.





## 1. COMMON DESCRIPTION OF THE INSTITUTE

The publishing and Printing Faculty was founded in 1959 as one of the divisions of



the Ukrainian Ivan Fedorov Polygraphic Institute. In 1989, the faculty has been introduced to the Igor Sikorsky KPI. In 2004, the **Educational and Scientific Institute of Printing and Publishing (IPP)** was founded based on the Publishing and Printing Faculty.

The Institute trains highly qualified production engineers, system engineers,

mechanics, specialists in the management of production, marketing of printed products and printing materials production, editors, graphic artists, graphic designers, and packaging designers for the publishing and printing industry in Ukraine.

**Graduates of the Institute work** at printing companies, publishing houses, and other organizations that produce printed products by traditional and special types of printing, as well as research and design institutes, which are scientific and technical developments in the field of printing and engineering, development and synthesis of basic materials.

## 2. STRUCTURE

## The Institute of Printing and Publishing consists of 5 graduating departments:

- 1. Department of Graphic Arts;
- 2. Department of Publishing Studies;
- 3. Department of Printing Machines and Automated Complexes;
- 4. Department of Reprography;
- 5. Department of Printing Technology, as well as
  - Educational Scientific and Technology Center;
  - Educational Center of Media Technology;
  - Laboratory of Computer Science and Multimedia;
  - Educational Engineering Laboratory;
  - Educational Laboratory of Lithography;
  - Educational Laboratory of Sculpture.





## 3. EDUCATIONAL PROGRAMS

**Levels of higher education**. Training of students at the **IPP** is carried out at three levels of higher education.

At the first level (Bachelor's course, I–IV academic years), students acquire fundamental knowledge in physics, mathematics, mechanics, computer engineering, and special disciplines. During the fourth year, they prepare and defend the bachelor's thesis and acquire a bachelor's degree.

At the second level, (Master's course, I-II academic years) students acquire relevant professional skills including laboratory practice. Applicants prepare and defend a master's theses and acquire a master's degree

The third educational-scientific level – postgraduate studies, I-IV academic years. Applicants defend their dissertations and they are awarded the educational qualification of Doctor of Philosophy (Ph.D.).

*Terms of training:* Bachelor – 4 years; Master (education-professional program) – 1.5 years; Master (education-scientific program) – 2 years: Ph.D. – 4 years.

Specialists are trained on a full-time and part-time basis.

# 1. Department of Graphic Arts provides training under the following Educational Program:

Specialty	Educational Program	Levels of higher education		
- Cposianty		First	Second	Third
<b>023</b> Fine Arts, Decorative Arts, Restoration	Fine Arts	Bachelor <i>EPP</i>	Master EPP	_

Comment: EPP – Educational-Professional Program

Students study the art of drawing, composition, painting, etching, lithography, the technique and the technology of art materials to create an artistic image; font compositions construction tools, the creation of original models printing of publications, electronic media design using modern hardware and software, including Adobe Illustrator, Adobe Photoshop, CorelDRAW, Adobe Flash, Font Creator, FontLab Studio, Adobe InDesign.

**Career opportunities**: Graduates can engage in all types of fine art, working in publishing houses, editorial offices of media, design studios, publishing departments of companies, PR, and advertising agencies, and the like. Graduates are employed in the position of art director, designer, master artist, head of the publishing department of the decoration, and the teachers in the schools.





# **2. Department of Publishing Studies** provides training under the following Educational Programs:

Specialty	Educational Program	Levels of higher education		
Opeciaity		First	Second	Third
	Publishing and Editing	Bachelor EPP	Master EPP	_
<b>061</b> Journalism	Advertising and Public Relations	Bachelor EPP	Master EPP	_
	Social Communications, Journalism	_	-	PhD ESP

Comment: EPP – Educational-Professional Program
ESP – Educational-Scientific Program

As a result of mastering the educational program "Publishing and Editing", students



gain knowledge and skills that will help them in the future: to organize their publishers and publishing organizations, and advertising agencies, develop publishing programs; create layouts of printed and electronic publications; exercise editorial analysis of the various types of publications; write and edit texts in different media.

Career opportunities: graduates work in publishing houses, editorial offices of print and

electronic publications, editorial and publishing departments of enterprises, information, advertising agencies, radio, and television, occupied the post of editor, senior editor, proofreader, journalist, head of the publishing department of scientific and research institutions, educational institutions and so on.

Students of the educational program "Advertising and Public Relations" are capable of performing such activities: advertising and information; advertising and administrative (managerial), organizational and advertising; marketing and advertising; information and creative; information and communication; information management; information management; expert and communicative.

Graduates can work in the positions of heads of advertising and PR agencies, advertising and PR departments, information managers, managers of advertising and PR on TV, radio, print, and online publications, government, and commercial institutions, media portals, press secretaries, copywriters, speechwriters, communication experts in parties and other public organizations.





# 3. Department of Printing Machines and Automated Complexes provides training under the following Educational Programs:

Specialty	Educational Program	Levels of higher education		
		First	Second	Third
133 Industrial	Computerized Printing Systems	Bachelor EPP	Master EPP	_
Machinery Engineering	Industrial Machinery Engineering	_	_	PhD ESP

Comment: EPP – Educational-Professional Program
ESP – Educational-Scientific Program

Students study modern printing equipment, tools for design and research of printed



computerized technical systems, including programming language C++ that supports object-oriented, generic, and procedural areas of programming, "Compass», Autodesk Inventor, SolidWorks, AutoCAD, MathCad, MATLAB, Adobe Photoshop, Adobe Illustrator.

Career opportunities: management and administration in the field of economics, personnel, commercial, investment work of media companies, publishers, media outlets,

and printing companies, analysis, and organization of their activities, research of economic aspects of publishing and printing processes; feasibility study of design decisions.

Workplaces of the future specialists - enterprises and organizations of the creative economy and media industry, namely editorial offices of mass media; new media and internet projects; planning and economic, financial, and production departments of publishing houses and printing companies; marketing, logistics, and sales services; advertising and PR agencies; wholesale and retail book trade enterprises; subdivisions of technical and economic research of research institutes.





# **4. Department of Reprography** provides training under the following Educational Programs:

Specialty	pecialty Educational Program		Levels of higher education		
opoolaity	Ladoutional Frogram	First	Second	Third	
186	Technologies of Printed and Electronic Editions	Bachelor EPP	Master EPP	_	
Publishing			Master ESP		
and Printing	Publishing and Printing	_	_	PhD ESP	

Comment: EPP – Educational-Professional Program
ESP – Educational-Scientific Program

Students mastering the technologies of electronic publications; technologies for



creating multimedia products; design publications and packaging and 3D-modeling; layout setting software; software and hardware for multimedia publications; the processing of audio and video with the use of modern hardware and software Autodesk 3ds Max, Adobe InDesign, Adobe After Effect, Adobe Premiere Pro, Adobe Photoshop, HTML, CSS.

In addition, students study the technology of text and graphic information processing; media

technology of rarities recovery; technology of publishing and printing industry; automated design of publications and packages; object-oriented programming on the web-server; design of publishing and printing industry using software Adobe Illustrator and Photoshop, Esko ArtiosCAD, Heidelberg Package Designer, HeidelbergSigna Station, KodakPreps, AutoCAD, T-Flex, MathCAD, MathLab.

**Career opportunities**: graduates can work in publishing, media centers, enterprises, advertising agencies, and firms, in the positions of designers, managers, engineers, and research engineers of electronic, multimedia, and complex publications, and their structural elements, post-press, and finishing pre-production with the use of automated computerized publishing and printing systems with the use of modern computer publishing systems.





# **5. Department of Printing Technology** provides training under the following Educational Programs:

Specialty	pecialty Educational Program		Levels of higher education		
		First	Second	Third	
186	Technologies of Printed and Electronic Editions	Bachelor EPP	Master EPP	_	
Publishing			Master ESP		
and Printing	Publishing and Printing	_	_	PhD ESP	

Comment: EPP – Educational-Professional Program
ESP – Educational-Scientific Program

Students study modern technological processes of printing production, including



processing programs of textual and graphical information, layout, design, and make-up of electronic and print media, development of packaging, graphic design: HTML, CSS, Adobe Illustrator, Adobe Photoshop, Adobe InDesign, CorelDRAW, QuarkXPress, CERBER®, AutoCAD, T-FLEX CAD, MathCAD, Heidelberg Signa Station, Package Designer, SPSSI, Kodak Preps and the like.

**Career opportunities**: graduates work as process engineers, designers, engineers, and researchers at printing companies, publishing houses, printing houses, research, and design organizations, to develop and produce a variety of publications and packaging, as well as products that do not require additional protection against forgery (banknotes, securities, certificates, tax stamps, etc.).

# **Educational Scientific and Technology Center** performs the following tasks:

- participation in the educational process on the technology of publishing and printing, methods and means of quality control of printing products, construction, and design of printing machines, devices and equipment, and printing production;
- preparation and publication of scientific and technical, educational and methodical literature and documentation for the organization of the educational process of the institute;
- development of technologies and equipment for the protection and decoration of printing products and industrial products, containers, and packaging;
- training of higher education students in modeling and 3D printing.



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The Center following its tasks has the following functions:

- performs research and scientific and technical work to improve technology and create new types of equipment for the publishing and printing industry;
- conducts industrial, technological, introductory, and undergraduate practice for graduates of the institute;
- develops and implements new technologies and techniques of printing production;
- provides expert assessment of technological processes and materials, equipment parameters, environmental safety, and environmental protection.

## Educational Center of Media Technology performs the following main tasks:

- provision of educational services (in particular with the help of distance learning)
   for higher education seekers, research and teaching staff in the field of printing;
- engineering implementation of educational research in the field of printing, taking into account the needs of domestic and foreign markets;
- introduction of educational scientific and technical developments, organization of production activities;
- repair and maintenance of technical and technological equipment, as well as the author's supervision over the use of scientific and technical developments;
- mathematical modeling of physical phenomena, processes, and devices, creation and implementation of software products;
- promoting the development and implementation of new educational technologies;
- participation in the training and retraining of scientific, pedagogical, and engineering personnel of high qualification in the field of printing.

# **Laboratory of Computer Science and Multimedia:**

- contributes to improving the quality of training of specialists in the publishing and printing industry through the implementation of practical creative and research components of research;
- conducts work on computer workshops, laboratory, and practical classes in the disciplines of departments at a high scientific, methodological and technical level under current working curricula and guidelines;
- provides use of opportunities of computer technologies and technical means of training scientific and pedagogical workers and applicants for higher education;





- organizes independent work of full-time and part-time higher education students to question the creative and research abilities of higher education students;
- provides individual work for scientific and pedagogical workers and applicants for higher education;
- creates appropriate and effective conditions at the modern scientific and technical level for internships of employees of other educational institutions

## **Educational Engineering Laboratory**:

- promotes the organization and conduct of the educational process to study the structure of construction and design of printing machines, devices, and equipment for printing production for all specialties of the institute according to the curricula of departments;
- prepares and publishes engineering and methodological literature for the organization of the Laboratory;
- develops and creates methodical literature on the design, primary and technical maintenance of printing equipment for all specialties of the institute;
- promotes the training and production practice of students of departments;
- conducts tests, analysis of technological regimes, expert opinions, increasing the efficiency of equipment and its environmental safety, protecting the environment from its harmful effects;
- carries out works on the development of equipment and technology for decoration of industrial products, containers, and packaging, and production of forms and equipment for special types of printing.

# **Educational Laboratory of Lithography:**

- promotes the organization and conduct of the educational process for the study and technology of lithographic printing of the day of all specialties of the publishing and printing institute under the curriculum;
- · performs educational and creative work in the technique of lithography;
- prepares and publishes educational and methodical literature for the organization of the Laboratory, develops and creates methodical literature on the study of lithography techniques;
- performs practical tasks in the technique of lithography.





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# Educational Laboratory of Sculpture has the following functions

- organization of the educational process and the study of annual sculptural materials and techniques under the curriculum of the specialty;
- performing educational and creative work using various sculptural materials and techniques;
- preparation and publication of educational and methodical literature for the organization of the Laboratory, development, and creation of methodological literature for the study of various

## 4. TRAINING AND LABORATORY BASE

Laboratory of Printing Machines and CAD and Training and Demonstration Center Heidelberg operates at the **Department of Printing Machines and Automated Complexes**.

POINT Scientific and Engineering Center and the listed below laboratories operate at the **Department of Reprography**:

- Laboratory of Physico-Chemical Fundamentals of Graphic Arts Technology;
- Laboratory of Computer Engineering;
- Laboratory of Printing Materials;
- Laboratory of Artificial Intelligence;
- Training and Technology Center of Printing Production.

## **Department of Publishing Studies** is provided by:

- Students' Editorial office;
- Laboratory of Desktop Publishing Systems;
- Training Technology Center.

#### **Department of Printing Technology** is provided by the following laboratories:

- Laboratory of Computer Processing of Text and Graphic Information;
- Laboratory of Platemaking Processes;
- Laboratory of Technology of Printing Processes;
- Laboratory of Binding and Stitching Technologies;
- Laboratory of Printing Materials.





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## 5. RESEARCH ACTIVITY

The main direction of scientific and technical research of the **Department of Fine Arts** is the research of problems of modern design of printed editions.

**Department of Publishing Studies** carries out research work on the nature of texts and features editorial preparation of various publications using modern desktop publishing systems.

The main directions of scientific work of the **Department of Printing Machines and Automated Complexes**:

- optimization of the structure of construction of thread and wire sawing machines;
- development of equipment and technology of pad-transfer printing machines;
- synthesis of cyclic mechanisms of printing machines;
- synthesis of cyclic mechanisms;
- synthesis of balancing devices of cyclic mechanisms and machines.

The main directions of scientific and technical activity of the **Department of Reprography:** 

- development, exploration, and operation of computerized processes, automated processing systems of textual and illustrative information;
- the design of repro-centers, shops, and production areas of the publishing and printing industries, its computer networks and software;
- research of materials for applied providing of automated editorial and publishing processes of printing production;
- development of computerized technologies for the production of printed, electronic, multimedia publications, and artificial intelligence systems.

The main directions of scientific and technical activity of the **Department of Printing Technology**:

- improving the performance properties of printing equipment using finishing and strengthening treatment;
- control of printed forms durability;
- development of technological processes of finishing and hardening of machine parts and tools;
- physicochemical fundamentals of photosensitive materials;
- physicochemical fundamentals of flat printing;
- special printing methods and packaging design technology;
- stabilization processes of reproducing information by the interaction of printed contact elements.



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## 6. INTERNATIONAL PROJECTS AND COLLABORATION

The main directions of an international collaboration of IPP:

- participation in international conferences, seminars, etc.;
- training of department scientists abroad;
- student exchanges;
- joint research.

Today **IPP** has existing agreements on joint research and educational-methodical activity with the following foreign institutions of higher education:

- Berg University of Wuppertal (Wuppertal, Germany);
- Leipzig Technical University (Graduate School of Technology, Economics, and Culture - HTWK) (Leipzig, Germany);
- Packing Institute of the University of Reims (Reims, France);
- Beijing Institute of Graphic Communication (Beijing, China);
- Institute of Graphic Communication (Institute of Printing) of Warsaw University of Technology (Warsaw Polytechnics) (Warsaw, Poland);
- Warsaw University of Advertising (Warsaw, Poland);
- Lodz University of Technology (Lodz, Poland;)
- Ryerson University (Toronto, Canada);
- University of Graduate Studies in Management "Monarch Business School" (Wahlen, Switzerland);
- Livingstone International University of Tourism Excellence and Business Management (LIUTEBM) (Lusaka, Zambia).

**IPP** maintains creative collaborations with the following foreign universities:

- Stuttgart Media University (Germany)
- Western Michigan University (USA)
- Clemson University (USA)
- University of Ljubljana, Faculty of Science and Technology (Ljubljana, Slovenia)
- Tashkent Institute of Textile and Light Industry (Tashkent, Uzbekistan)





Two thematic schools are held based on the IPP:

- Summer school in the framework of a cooperation agreement between the Igor Sikorsky KPI and the Polytechnic Institute of Lodz (Lodz, Poland).
- Winter school (supervised by Prof. Volker Rong, ex-head of the Bergischen University of Wuppertal (Germany).

IPP maintains creative and practical communications with the printing plants of Ukraine, Germany, and Poland, and participates in international exhibitions "Polygraph Industry". The leading world companies are actively involved in the process of creation and support of modern laboratories of IPP. Branches of the department on the GE "Press of Ukraine" and OJSC "Kievpoligrafmash" are providing training in cycles of disciplines on plate making, printing, and binding equipment. Students are trained at the factories that manufacture printing machines (companies "Heidelberg" and "KIA" (Germany) and at the modern enterprises of Ukraine.





#### 7. CONTACT INFORMATION

### 1. Director of Institute:

D-r of Tech. Sci., Prof., Petro P. Kirichok

Address: 1/37 Yangel Street, Ed. Building 8, Room 48-8, Kyiv, Ukraine, 03056

Phone: +38044 204 83 61, 204-97-69

e-mail: vpi ntuu kpi@ukr.net
Official website: http://vpi.kpi.ua

## 2. Department of Graphic Arts

Head of Department:

D-r of Cultural Studies, Prof., Svitlana V. Olyanina

Phone: +380 44 279 04 42

Official website: http://graf.vpi.kpi.ua

## 3. Department of Publishing and Editing

Head of Department:

D-r of Sci. in Social Communications, Prof., Olga V. Trishchuk

Phone: +380(44) 204-85-45

Official website: http://vsr.vpi.kpi.ua

## 4. Department of Printing Machines and Automated Complexes

Acting Head of Department:

D-r of Tech. Sci., Prof., Anatolii V. Shevchuk

Phones: +380 44 204 99 15, 204 84 20 Official website: <a href="http://mapv.vpi.kpi.ua/en/">http://mapv.vpi.kpi.ua/en/</a>

#### 5. Department of Printing Technology

Acting Head of Department:

D-r of Tech. Sci., Prof., Tetiana A. Roik

Phone: +380 44 204 84 23

Official website: http://tpv.vpi.kpi.ua

### 6. Department of Reprography

Head of Department:

D-r of Tech. Sci., Prof., Evgeniy V. Shtefan

Phone: +380 44 204 84 26, mob. +38(050) 312-74-41

Official website: http://repro.kpi.ua



