"... Institute trains highly
qualified production engineers,
system engineers, mechanics,
and experts
in management of production,
marketing of printed products
and printing materials
production, editors, graphic
artists, graphic and packaging
designers ..."



INFORMATION PACKAGE

TRAINING AND SCIENTIFIC PUBLISHING AND PRINTING INSTITUTE

Kyiv, 2021

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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

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, Training and Scientific Publishing and Printing Institute (PPI) was founded on the basis of the Publishing and Printing Faculty.

The Institute trains qualified highly engineers. production 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

Publishing and Printing Institute consists of

- Department of Graphic Arts;
- Department of Publishing and Editing;
- Department of Machinery and Units of Printing Equipment;
- **Department of Reprography**;
- Department of Printing and Publishing Technologies;
- Educational and Engineering Laboratory (center) of the Department of Machinery and Units of Printing Equipment;
- POINT Scientific and Engineering Center, Department of Reprography;
- Technical Center for Reprography. Branch of the Department of Machinery and Units of Printing Equipment at the State Enterprise PC "Ukraine";
- Educational Scientific and Technical Center of the Department of Printing and Publishing Technology;
- Training Laboratory of Desktop Publishing Systems of the Department of Publishing and Editing;
- Educational and Lithographic Laboratory (Center) of the Department of Graphic Arts.



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3. EDUCATIONAL PROGRAMS

Levels of higher education. Training of students at the **PPI** 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 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 (PhD).

Terms of training: Bachelor – 4 years; Master (education-professional program) – 1.5 years; Master (education-scientific program) – 2 years: PhD – 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 | | |
|---|---------------------|----------------------------|------------|-------|
| Operation | | First | Second | Third |
| 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, the teachers in the schools.





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2. Department of Publishing and Editing provides training under the following Educational Programs:

| Specialty | Educational Program | Levels of higher education | | |
|------------|-----------------------------------|----------------------------|------------|---------|
| Specialty | | First | Second | Third |
| | Publishing and Editing | Bachelor EPP | Master EPP | _ |
| | | | Master ESP | |
| Journalism | Advertising and Public Relations | Bachelor EPP | Master EPP | _ |
| | | | Master ESP | |
| | Social Communications, Journalism | - | - | PhD ESP |

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

As a result of mastering the educational program educational program "Publishing



and Editing", students gain knowledge and skills that will help them in the future: to organize their publishers and publishing organizations, 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.

graduates

work

in

opportunities:

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.

Career

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.

Career opportunities: Graduates can work in the positions of heads of advertising and PR agencies, advertising and PR departments, information managers, managers on 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 Machinery and Units of Printing Equipment provides training under the following Educational Programs:

| Specialty | Educational Program | Levels o | f higher education | |
|-------------|----------------------------------|--------------|--------------------|---------|
| opoolaity | Ladoudona i Togram | First | Second | Third |
| Industrial | Computerized Printing Systems | Bachelor EPP | Master EPP | _ |
| Machinery | | | Master ESP | |
| 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 economic, 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 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 | ty Educational Program | Levels of higher education | | |
|-------------------------|--|----------------------------|------------|---------|
| opoolaity | | First | Second | Third |
| 5 | Technologies of Printing and Electronic Editions | Bachelor EPP | Master EPP | _ |
| Publishing and Printing | | | Master ESP | |
| | 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, firms, in the positions of designers, managers, engineers, 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.



6. Department of Printing and Publishing Technologies provides training under the following Educational Programs:

| Specialty | Educational Program | Levels of higher education | | |
|-------------------------|--|----------------------------|------------|---------|
| opoolaity | | First | Second | Third |
| 5 | Technologies of Printing and Electronic Editions | Bachelor EPP | Master EPP | _ |
| Publishing and Printing | | | Master ESP | |
| | 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, 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.).

4. TRAINING AND LABORATORY BASE

The Institute consists of such branches and laboratories:

- Training Engineering laboratory (Center) of the Department of Machinery and Units of Printing Production (since 1998);
- Scientific and Engineering Center "POINT", Department of Reprography;
- Technical Centre of Reprographics. Technology Branch of the Department of Printing and Publishing Technologies in the SE PC "Ukraine" (since 2003);

Laboratory of Printing Machines and CAD and Training and Demonstration Center Heidelberg operates at the **Department of Machinery and Units of Printing Equipment**.





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 and Editing is provided by:

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

Department of Printing and Publishing Technologies 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.

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 and Editing 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 Machinery and Units** of **Printing Equipment**:

- 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, artificial intelligence systems.

At the **Department of Printing and Publishing Technologies**, it was created several scientific schools and applied research areas:

- improving the performance properties of printing equipment by means 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.

6. INTERNATIONAL PROJECTS AND COLLABORATION

The main directions of an international collaboration of PPI:

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

Today **PPI** has existing agreements on joint scientific 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)
- Moscow State University of Printing (Moscow, Russia)
- North-Western Institute of Printing St. Petersburg State University of Technology and Design (Saint- Petersburg, Russian Federation)





- 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)

PPI maintains creative collaborations with the following foreign universities:

- Stuttgart Media University (Germany)
- Western Michigan University (USA)
- Clemson University (USA)
- Belarusian State University, "Research Institute of Physics and Chemical Problems" (Minsk, Belarus)
- 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 PPI:

- 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).

The Faculty maintains creative and practical communications with the printing plants of Ukraine, Germany, Poland, participates in international exhibitions "Polygraph Industry". The leading world companies are actively involved in the process of creation and support of modern laboratories of PPI. Branches of the department on the GE "Press of Ukraine" and OJSC "Kievpoligrafmash" are providing training of 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

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