

Master's program “Medical Engineering”

Certificate program “Regulatory Affairs in Biomedical and Biopharmaceutical Engineering”



The program focus

Medical engineering covers research methods using engineering and technical knowledge, as well as development, production, operation and certification of medical equipment, biomaterials, medical products, software and information support for health care.

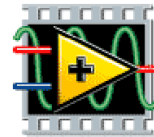
Regulatory affairs are a set of issues of legislative and technical regulation of development, testing, manufacturing, distribution, quality management and conformity assessment of medical devices, as well as related medical products (pharmaceutical, cosmetic, disinfectants). Technical regulation of the European Union and international standards are mainly studied.

The graduate gets a master's diploma and an additional certificate of the “Regulatory relations in biomedical and biopharmaceutical engineering” course.



The program focus: Medical Engineering

Mathematical methods in the analysis, modeling of the functioning of living organisms, systems and processes in biology and medicine.



NATIONAL INSTRUMENTS

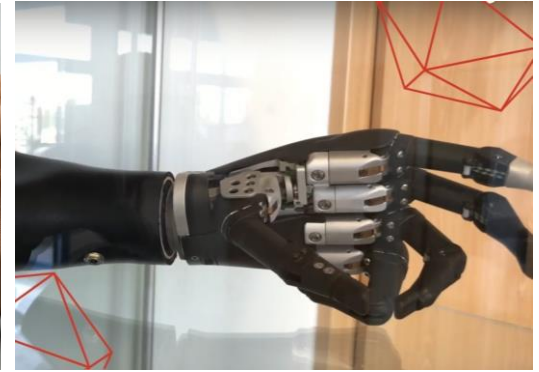
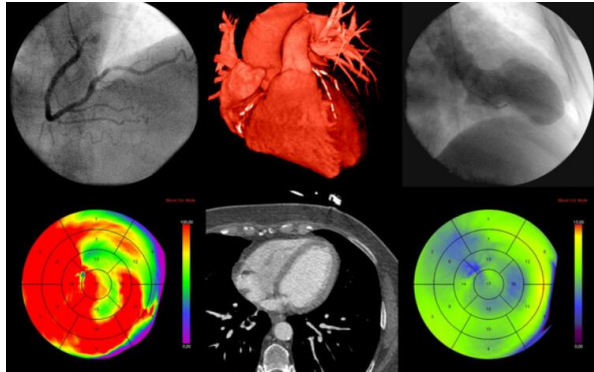
LabVIEW



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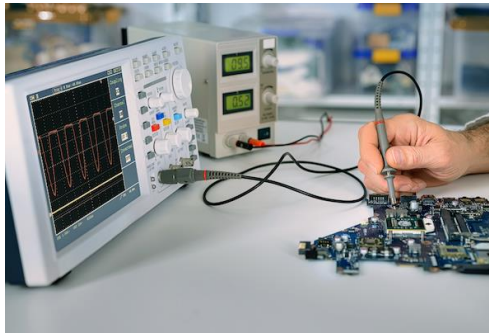
The program focus: Medical Engineering

Research and design of biological, natural and artificial systems (prostheses, artificial organs, etc.), plan biotechnical tests of artificial prostheses and systems.



The program focus: Medical Engineering

Design and practical use of microcomputer and microprocessor systems in medical and diagnostic information and measurement equipment.



The program focus: Regulatory Affairs & Biopharmaceutical Engineering

Legislative and technical regulation of the market of medical devices and biopharmaceutical products, as well as quality management.



A Guide to In Vitro Diagnostic
Medical Devices Regulations

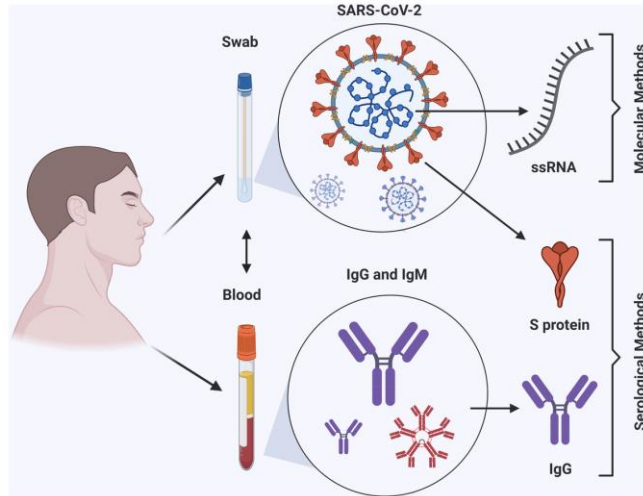


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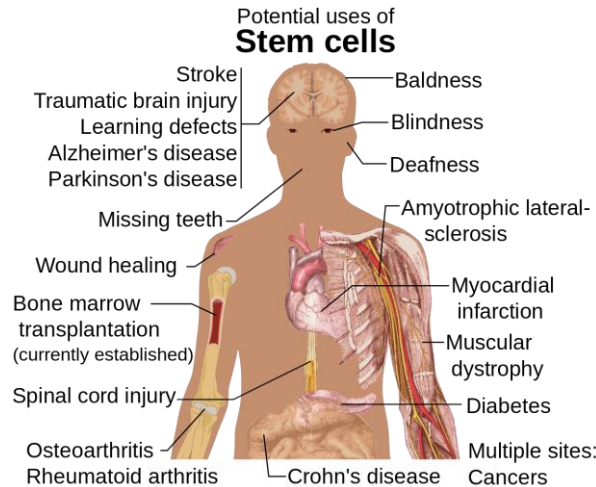


The program focus: Regulatory Affairs & Biopharmaceutical Engineering

Technologies of medical products of biological origin, biomaterials and some biopharmaceutical products.



Test kits for diagnosing infectious diseases



Methods of regenerative medicine based on cell therapy



Disciplines

- Medical physics
- Medical imaging and signals (Biomedical information display systems)
- High-tech systems for diagnostics and therapy
- Medical microprocessor systems (Digital signal processors + Design of information and measurement systems)
- Medical expert systems
- Physiology of sensory systems
- Electronic sensors and biochips
- Regulatory affairs in biomedical engineering and biopharmaceutics
- Quality assurance systems in biomedical engineering and biopharmaceutics
- Methods of quality control of biomedical and biopharmaceutical products



Where to get a job?

- **Hospitals:** LISOD Israeli Oncological Hospital <http://www.lisod.com/>, Obstetrics & gynecology clinic ISIDA <https://isida.ua/eng/>, Institute of Cell Therapy <https://instituteofcelltherapy.com/en/>.
- **Conformity Assessment Bodies & Consulting Companies:** TÜV Nord Group <https://www.tuv-nord.com/>, DEKRA, <https://www.dekra.com/>, PSI CRO <https://www.psi-cro.com/>.
- **BioPharma, Implants, 3D Printing & In vitro Diagnosis:** Merck & Co., Inc. (MSD) <https://www.msd.com/>, BioImplant <https://bioimplant.at/>, LightForce <https://lf.co/>, LifeScan <https://www.lifescan.com/>.



Teaching Staff

Graduate departments are **Biomedical Engineering Department** <https://bmi.fbmi.kpi.ua/> & **Translational Medical Bioengineering Department** <https://bi.fbmi.kpi.ua/>. Our leading teachers combine teaching and practical work in companies, certification bodies and clinics:

- Prof. Vladyslav Shlykov (Medical Equipment & Medical Imaging)
- Dr. Maryna Sychik (Clinical Engineering)
- Dr. Olena Golembiovska (Regulatory Affairs & Biopharmaceuticals)
- Dr. Tetana Lutsenko (Biotechnology & Biomaterials)



Contact information

Center for International Education: <https://istudent.kpi.ua/>

Details about the master's program:

- Mrs Olena Golembiovskaya: golembiovskaya-fbmi@lll.kpi.ua, @alena_golembiovskaya (Telegram)
- Mrs Larysa Kalashnikova: doc.lkalashnikova@gmail.com, @lkalashnikova (Telegram)



Engineering and Regulatory Affairs in Healthcare is Your Way to Success!



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