Educational level PhD
Medical Institute of Sumy State University offers the following PhD programs:

1. **Medicine** – [http://op.sumdu.edu.ua/#/programm/411](http://op.sumdu.edu.ua/#/programm/411)
3. **Biology** – [http://op.sumdu.edu.ua/#/programm/115](http://op.sumdu.edu.ua/#/programm/115)
4. **Dentistry** – [http://op.sumdu.edu.ua/#/programm/119](http://op.sumdu.edu.ua/#/programm/119)
5. **Sports** – [http://op.sumdu.edu.ua/#/programm/430](http://op.sumdu.edu.ua/#/programm/430)

PhD program in Medicine is divided in 4 different fields – Experimental Medicine, Internal Medicine, Surgery and Public Health.

**Program learning outcomes:**

Program covers both educational and research ECTS credits. Educational component is focused on new knowledge and professional skills development, covers professional language, scientific writing, project preparation and different laboratory courses (cell culture, Elisa, PCR, microbiology, etc.). PhD students can choose educational course required for their research and professional growth.

Research activities cover a wide range of scientific fields from basic science to clinical research. PhD candidates can find groups that provide high quality research in cell biology, single gen polymorphism, bone biology, regenerative medicine, microbiology, virology, pathology, biomaterials and public health. Clinical doctors can join research in surgery, internal medicine, cardiology, pulmonology, orthopedics, oncology and many other clinical disciplines.

PhD students in medical program are provided with interdisciplinary research, involving departments of chemistry, physics, mathematics, economics, etc. These opportunities allow providing high quality research with leading scientist from neighbor fields. PhD students in sport program are provided knowledge and understanding of the main problems of development of modern technologies of management of sports preparation, physiological mechanisms of adaptation and functional reserves of an organism and functional diagnostics of athletes in elite sport and implementation of projects in physical training of different national groups.

**Resources:**

More than 200 experienced researchers (including more than 30 full professors) are responsible for PhD education in Medicine. PhD students can find supervisor with required expertise in a wide range of research fields as well as co-supervisor with additional expertise. All students have full access to research facilities of Medical Institute located in Research Center as well as within different departments. Medical institute owns cell culture laboratory, SEM and TEM equipment, bacteriological laboratory, ELISA and PCR (including conventional and real-time modes), animal unit, histology and histochemical laboratories, chemical and biochemical laboratories, etc. Clinical departments give access to patients with different pathologies and PhD students can collect data and materials for research purpose.

Sumy State University owns University Clinic with modern equipment for clinical research, including biochemical laboratory, sonography and CT-scan centers.

PhD students in Sport and Physical Rehabilitation can cooperate with Center for Olympic Sport and collect data from clinical investigation involving professional sportsmen.

All PhD students have full access for University library, including repository of research papers, world databases and open recourses.
study program

Physical Culture and Sport

https://op.sumdu.edu.ua/#/programm/430

Possible aspects of studying the scientific problem within the program:

knowledge and understanding of the main problems of development of modern technologies of management of sports preparation, physiological mechanisms of adaptation and functional reserves of an organism and functional diagnostics of athletes in elite sport and implementation of projects in physical training of different national groups.
Faculty of Electronics and Information Technologies
After successful completing a master’s degree, I successfully defended my PhD thesis in 2012. I liked the high scientific level of teaching, friendly team and the opportunity to investigate the film materials properties using modern equipment. I am very glad that I studied at Sumy State University.

Abid Al Karem M. Muhammed
magistracy graduate, PhD in the field of Physical Solid State, Department of Physics, College of Science, Mosul University, Mosul, Iraq

Program learning outcomes:
- to establish connections among facts, hypothesis and events;
- ability to use information and computer technologies in practice and education process;
- knowledge of modern applied sciences that can be a subject of physical research;
- and skills of practical usage of knowledge of applied physics and nanomaterials.

Research area:
Design, development and research of nanostructured multilayer coatings for industrial manufacturing applications. Modification of the structure and properties of materials using pulsed ion intensive beams, high-current electron beams and pulsed plasma flows. Development, creation and research of multicomponent nanostructured coatings with high hardness and thermal stability. The processes of high-dose and intensive implantation in metallic and semiconductor materials to improve their properties.
Faculty of Technical Systems and Energy Efficient Technologies
Program learning outcomes:

• to use mathematical apparatus and software for modeling, statistical methods of analysis to establish trends in the development of research objects according to the model and experiments in the field of technical regulation, metrology, information and measuring equipment;

• knowledge of design, development and implementation of modern technological processes for manufacturing and application of new high-tech technologies in the field of technical regulation, metrology, information and measuring equipment.

Available resources for research: laboratory of composite materials, laboratory of designing, modeling and diagnostics of technical systems, laboratory of mechanical tests, laboratory of chemical and thermal processing, laboratory of materials machining, laboratory of electronic microscopy, computing centers.
study program
Chemical Technology and Engineering

Official title: Chemical Technology and Engineering
Duration of education: 4 years
Language of instruction: Ukrainian

Program learning outcomes:
- to use modern mathematic methods and informatic results of technologies, computer systems and networks, program products while gaining the new knowledge, getting scientific and practical results in professional sphere;
- to entrepreneurship and initiating regarding implementation and industrial usage of scientific research results;
- competency in innovational methods of education and methodics of occupational disciplines teaching;
- knowledge and understanding of scientific research methods, ability to use methods on the PhD level;
- to organize scientific research both by individually and in scientific community.

Available resources for research: in the academic and research work for the educational program, 10 laboratory test stands are used. Theoretical training sessions are held in 2 laboratory classes and 2 computer classes equipped with licensed Microsoft operating system. The faculty members involved in the program are distinguished scholars who publish works in the domestic and foreign scientific editions and have appropriate professional competence.

I was always interested in the field of environment protection and I was sure that I could contribute to this area. I can solve complex problems in the field of environmental technologies, which involves profound rethinking of existing ones and creation of new integrated knowledge, carrying out my own scientific research, the results of which have scientific novelty, theoretical and practical significance.

Oleksandr Miakaiev
PhD student

http://teset.sumdu.edu.ua/images/docs/phd%20examprog%20183.pdf

study program
Technologies of Environmental Protection

Official title: Technologies of Environmental Protection
Duration of education: 4 years
Language of instruction: Ukrainian

Program learning outcomes:
- to classify hazardous substances by levels of the degree of their danger;
- knowledge of anthropogenic processes in soil and plant complexes;
- knowledge of principles of modelling the reversible and irreversible anthropogenic processes;
- knowledge of functional characteristics of degradation processes of natural and technical systems.

Available resources for research: students are provided with such resources for conducting research in the course of the qualification work of the Doctor of Philosophy as biochemical laboratory, laboratory of hydroecology, laboratory for rectification and laboratory for spectrochemical analysis. There are also multimedia rooms with access to the Internet.

http://teset.sumdu.edu.ua/images/docs/phd%20161.pdf
I would like to note the excellent teaching staff of the department, with whom I worked closely in the course of scientific research. I was especially impressed by the sincerity and goodwill of the teaching staff, the desire to share innovative ideas and experiences. I am very grateful to the professors of the department for their professional recommendations and advice!

**Li Zhui**  
PhD, Associate Professor, Research center of Western Energy Economy and Regional Development, Economics Institute, Xi’an University of Finance and Economics, China

**Aspects of scientific research within the study program:** in Economics, Environmental Economics, Economic Theory, Mathematical Methods, Models and Information Technologies in Economics, International Business Administration and Business Analytics. The study program process takes place in specialized rooms fitted with audio-visual equipment and necessary technical tools. The premises, material, and technical provision of all departments, which take part in providing study process, are involved.

Study classes take place in 24 multimedia lecture rooms, 6 computer classes equipped with licensed operational systems from Microsoft and applied software packages from Microsoft, Autodesk, Intel, Delcam, Adobe, Abby, Cisco, AnSys, Solid Works, Symantec, NetClass Pro, MikTeX, Profix and others. In the study process there are used modern informational and communicative technologies, in particular, distance learning, “Testing” and “E-learning” information systems, informational library system as well as SSU web-system.
study program
Environmental Economics

Official title: 051 Environmental Economics
Number of credits: 60 ECTS credits
Preconditions: specialist or master’s degree
Language of instruction: Ukrainian, English
Duration of education: 4 years

Aspects of scientific research within the study program:
The program is aimed to learn the methodology of scientific and pedagogical activity, conducting own scientific research, results of which have scientific novelty, theoretical and / or practical significance in the field of environmental economics and resource conservation, increasing of ecological and economic efficiency of management, stimulation of green investment and innovation activity.

During the studying in PhD program I have got the huge methodological, theoretical and practical basis for my future scientific research connected with economic justification of providing green projects in agriculture

Viktoriiia Hlazun
Phd, Associate Professor, Sumy National Agrarian University

My quest for advanced knowledge with the right educational tools and an academic and scientific research environment brought me to Sumy State University. I’m glad I fulfilled my academic pursuit

Nwosu Jonathan Emeka
PhD, Nigeria

Aspects of scientific research within the study program:
The program is focused on the formation competencies to acquire in-depth knowledge of the environmental management of organizations, the possession of general scientific (philosophical) competences, and acquisition of versatile researcher skills and the presentation of their own research results in oral and written form, particularly in a foreign language.

Nwosu Jonathan Emeka
PhD, Nigeria
study program **Marketing**

**Official title:** 075 Marketing

**Number of credits:** 60 ECTS credits

**Preconditions:** Specialist’s or master’s degree

**Duration of education:** 4 years

**Language of instruction:** Ukrainian, English

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**Aspects of scientific research within the study program**

The program is designed to provide PhD students with the skills necessary for a successful academic research and teaching career. The aim of the program is to identify and define present day and important marketing phenomena, to develop the necessary methodological approaches and tools to their investigation. The research topics are wide: from explaining consumer behaviour to predicting firm behaviour and improving companies marketing policy and practices.

Students will have opportunity to work closely with faculty members to provide scientific research and reports. The program based on traditional economic, behavioural, organizational theories, mathematical modelling in economics to focus on marketing problems faced by the companies and entrepreneurs. Through a combination of cross-disciplinary and practical oriented methods, the curriculum enables students to master concepts and research skills directly relevant to business problems.

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study program **Entrepreneurship and Trade**

**Official title:** 076 Entrepreneurship and Trade

**Number of credits:** 60 ECTS credits

**Preconditions:** specialist or master diploma

**Duration of education:** 4 years

**Language of instruction:** Ukrainian, English

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**Aspects of scientific research within the study program**

The program emphasis on formation of ability to solve specialized tasks, scientific and practical problems in the field of entrepreneurship, using modern scientific approaches, conducting analytical and scientific research and forecasting the developing of economic, market, socio-political and other spheres of society, forming the mechanisms of the effective conduct of entrepreneurial, trade and stock activities.

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study program **Money, Finance, and Credit**

**Official title:** 072 Money, Finance, and Credit

**Number of credits:** 60 ECTS credits

**Preconditions:** specialist or master’s degree

**Duration of education:** 4 years

**Language of instruction:** Ukrainian, English

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**Program learning outcomes:**

- to conduct a study on the movement of financial resources, on the formation and use of capital, income, and money funds;
- to analyze the financial and credit system of the state and its institutional infrastructure;
- to analyze financial and insurance markets, the governmental financial and foreign policies, and their components;
- to study the peculiarities of the governmental monetary policy in the conditions of modern globalizations processes.

**UKR** - https://op.sumdu.edu.ua/#!programm/140  
**ENG** - http://econ.fem.sumdu.edu.ua/en/ specialities/graduate

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**UKR** - https://op.sumdu.edu.ua/#!programm/491  
The program responds to all the current demands of university education and new challenges for practical business activities. Its scientific component provides optimal and systematic training of managers considering innovation, socio-environmental responsibility and ground applied orientation in the field of management. The structure of the program allows a student, based on the volume of scientific and applied material to choose additional topics based on individual preferences and interests, which motivates the most effective training.

**Mykola Petrushenko**  
assistant professor of the Department of Management

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**Aspects of scientific research within the study program:**

Problem solving based on creative thinking, using modern instruments and methods, international and national standards for management. Acquisition of practical skills in planning, motivation and controlling in organizations and enterprises in the various sectors engaged in economic activity.
Academic and Research Institute of Law
Writing PhD thesis for me was not so difficult. This is due to the high professionalism and qualification of the scientific and pedagogical staff of the Academic and Research Institute of Law of Sumy State University. For me, as a practicing lawyer, it was important to implement the practical skills into a scientific plane. This research allowed me to realize myself as a scientist and get a PhD in Law

**Yurii Bolbit**
Deputy Head of the Main Department of the State Fiscal Service of Ukraine in Sumy region, tax and customs adviser to rank I, Candidate of Legal Sciences

While writing a PhD thesis, it was extremely important for me that the topic of my work was related to my practical experience. Due to the scientific advisor, I realized my skills and got a degree. I am persuaded that the existence of the Specialized Academic Council is promising for Academic and Research Institute of Law of Sumy State University because of PhD defense process simplification. At the present time, without a doubt, I can state that in my work I use the scientific achievements and advices I received during my PhD thesis writing.

**Viktor Kibets**
Head of the Territorial Administration of the State Judicial Administration of Ukraine in the Sumy region, Honored Lawyer of Ukraine, Candidate of Legal Sciences
Program learning outcomes:

- to conduct research of international business environment of companies and monitoring of their main opponents;
- to find and evaluate new market opportunities, political and economic opportunities and risks of business running in certain countries and regions, detect an influence of macro- and microeconomic factors on business organizations;
- knowledge and understanding of principles of organization and methodics of international operations audit, forms of international calculations and order of foreign currency accounts opening.

Available resources for research:

The Department of Economic Cybernetics has suitable laboratories, teaching and methodological support and uses modern information technologies for the training.

To implement the curriculum of the program “International Business Administration and Business Analytics” the software of the specialized computer laboratories is used: Microsoft Office, Visual Studio, Statistica 6.0, Statistica 8.0, MatchCAD 14.0, Skarb Software, APM Trader, etc.


Program learning outcomes:

- to use international standards of quality assurance, audit, examination, other reassuring granting and related services with abidance to requirements of professional ethics in the process of practical activity;
- to perform administrative and management functions in the sphere of entities activity, public sector bodies;
- to structurize and solve problems in different professional situations.

Available resources for research:

The Department of Accounting and Taxation has suitable laboratories, teaching and methodological support and uses modern information technologies for the training.

International academic mobility programs are based on the agreements between Sumy State University and partner higher educational institutions of foreign countries, including Erasmus+ student academic exchange programmes

http://op.sumdu.edu.ua/#/programm/332
I was already working at the National Bank of Ukraine when I applied to the doctoral program. From a professional view, the program provided me with challenging but high-quality and well-structured courses, friendly, enthusiastic and dynamic environment to conduct research. I also would like to admit open, supportive, and frequent communication with my supervisor, his valuable comments and suggestions for future research, as well as socializing me into the departmental culture. Ph.D. is never an easy task, but it is worth it!

Dmytro Ohol
Senior Economist of the Market Survey Department, the National bank of Ukraine, graduate of 2016