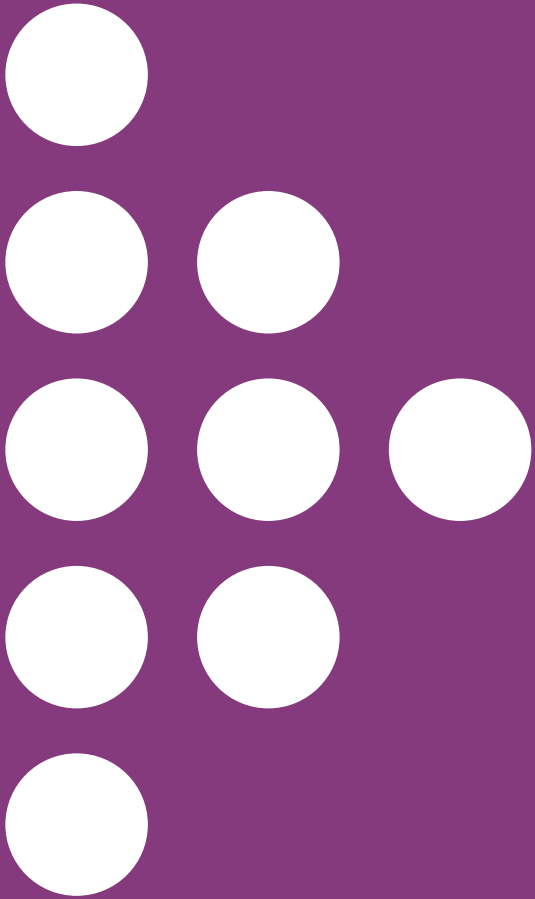


# Educational level PhD



**Medical  
Institute**

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



Duration of education:  
**4 years**

1. **Medicine** – <http://op.sumdu.edu.ua/#/programm/411>
  2. **Pediatrics** – <http://op.sumdu.edu.ua/#/programm/108>
  3. **Biology** – <http://op.sumdu.edu.ua/#/programm/115>
  4. **Dentistry** – <http://op.sumdu.edu.ua/#/programm/119>
  5. **Sports** – <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>

Number of credits:  
**90 ECTS credits**



Official title:  
**Entrepreneurship,  
Trade and Logistics**



Educational level:  
**PhD**



Language of  
instruction:  
**Ukrainian**



Preconditions:  
**Master's degree**

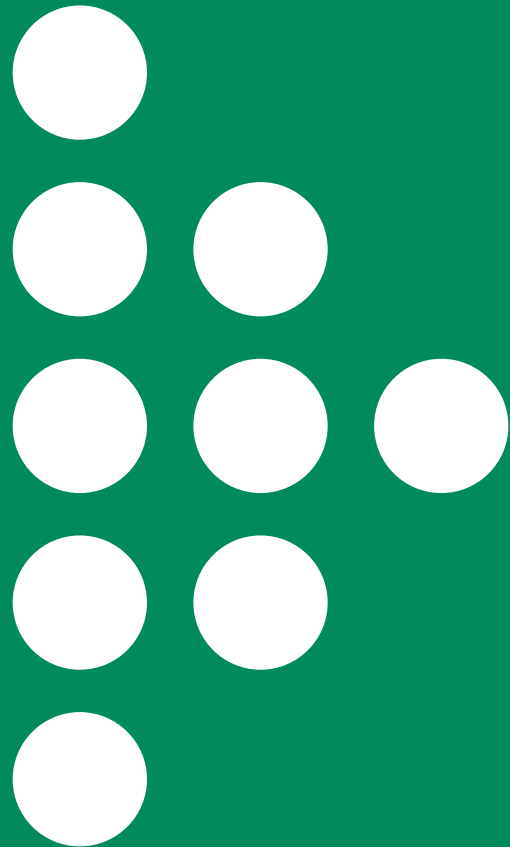


Duration of education:  
**4 years**

## 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



## study program

# Applied Physics and Nanomaterials



[http://ezpf.elit.sumdu.edu.ua/wp-content/uploads/2018/03/105\\_Prykladna\\_fizyka\\_ta\\_nanomaterialy.pdf](http://ezpf.elit.sumdu.edu.ua/wp-content/uploads/2018/03/105_Prykladna_fizyka_ta_nanomaterialy.pdf)

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:

Available resources for research: modern laboratories of film material science, equipped with vacuum chambers, electronic microscopes, automated complexes for measuring electrophysical and magnetoresistance properties, computer class, multimedia auditorium; constant advisory work of the professorial teaching staff.

- 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.

 Official title: <b>105 Applied Physics and Nanomaterials</b>	 Duration of education: <b>5 years</b>
 Language of instruction: <b>Ukrainian</b>	 Prerequisites: <b>specialist or master's degree</b>

<http://nano.elit.sumdu.edu.ua/ua/spetsialnost/104-1-fizichna-elektronika-ta-ionno-promenevi-metodi-obrobki-materialiv.html>



## study program





# Physical electronics and ion beam methods of material treatment

### The Department facilities include:

Research Laboratory of Vacuum Nanotechnologies; Research Laboratory of Electronic Microscopy; Research Laboratory of New Technologies in Physics and Microwave Technology; Computer Laboratory; Research Laboratory of Physical Bases of Electronic Technology; Access to databases of scientific publications, books, thesis.

### 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.

 Official title: <b>Physical electronics and ion beam methods of material treatment</b>	 Duration of education: <b>4 years</b>
 Prerequisites: <b>specialist or master's degree</b>	 Language of instruction: <b>Ukrainian</b>



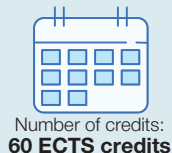
**Faculty of  
Technical  
Systems and  
Energy Efficient  
Technologies**

study program

# Metrology and Information-measurement Equipment



<http://teset.sumdu.edu.ua/images/docs/PhD%20examprog%20152.pdf>



## 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.

<http://teset.sumdu.edu.ua/images/docs/PhD%20examprog%20132.pdf>



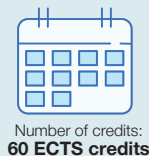
## study program Materials Science

## Program learning outcomes:

- the use of mathematical apparatus and software for modeling, statistical methods of analysis to establish trends in the development of research objects according to model and experiments in the field of materials science;
- design, development and implementation of modern technological processes for manufacturing and application of advanced technologies in the field of material science.

### 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



<http://teset.sumdu.edu.ua/images/docs/phd%20161.pdf>



Language of instruction:  
**Ukrainian**



Official title:  
**Chemical Technology and Engineering**



Duration of education:  
**4 years**

**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.

## Program learning outcomes:

- to use modern mathematic methods and infromationa 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.

<http://teset.sumdu.edu.ua/images/docs/PhD%20examprog%20183.pdf>



## study program

# Technologies of Environmental Protection

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

## 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.



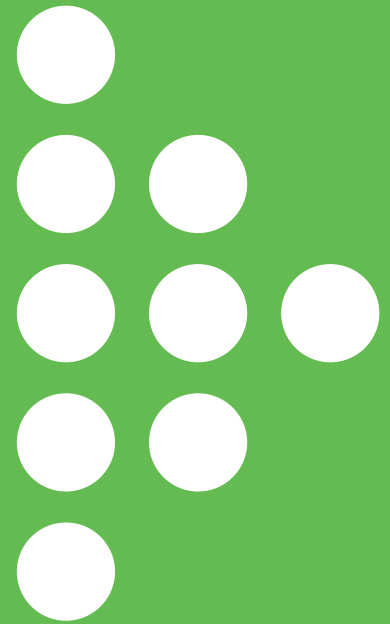
Official title:  
**Technologies of Environmental Protection**



Duration of education:  
**4 years**



Language of instruction:  
**Ukrainian**



**Oleg Balatskyi**  
**Academic and**  
**Research Institute**  
**of Finance,**  
**Economics and**  
**Management**



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

Number of credits:  
**60 ECTS credits**

Official title:  
**051 Economics**

Language of instruction:  
**Ukrainian, English**

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

Duration of education:  
**4 years**

**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



**UKR** - <https://op.sumdu.edu.ua/#/programm/120>  
**ENG** - <http://econ.fem.sumdu.edu.ua/en/specialities/graduate>



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

**Viktoriia Hlazun**

Phd, Associate Professor, Sumy National Agrarian University

<http://management.fem.sumdu.edu.ua/en/postgraduate-study>



## study program Environmental Management



Official title:  
**051 Environmental  
Management**



Number of credits:  
**60 ECTS  
credits**



Duration of education:  
**4 years**



Language of instruction:  
**Ukrainian, English**



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

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.



Number of credits:  
**60 ECTS credits**



Official title:  
**075 Marketing**



Language of instruction:  
**Ukrainian,  
English**



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



Duration of education:  
**4 years**

### 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.

## study program **Entrepreneurship and Trade**



Number of credits:  
**60 ECTS credits**



Official title:  
**076 Entrepreneurship  
and Trade**



Language of instruction:  
**Ukrainian, English**



Preconditions:  
**specialist or master  
diploma**



Duration of education:  
**4 years**

### 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.

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



Number of credits:  
**60 ECTS credits**



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



Language of instruction:  
**Ukrainian, English**



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



Duration of education:  
**4 years**

### 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 globalization processes.

**UKR** - <https://op.sumdu.edu.ua/#/programm/140>

**ENG** - <http://econ.fem.sumdu.edu.ua/en/specialities/graduate>

**UKR** - <https://op.sumdu.edu.ua/#/programm/491>

**ENG** - <http://fin.fem.sumdu.edu.ua/en/96-postgraduate-s-programms/435-educational-and-scientific-program-money-finance-and-credit.html>

## study program **Entrepreneurship and Investing**



<http://fin.fem.sumdu.edu.ua/en/96-postgraduate-s-programms/436-educational-and-scientific-program-entrepreneurship-and-investing.html>



Official title:  
**076 Entrepreneurship  
and Investing**



Number of credits:  
**60 ECTS credits**



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



Language of instruction:  
**Ukrainian, English**



Duration of education:  
**4 years**

### Program learning outcomes:

- to understand key concepts of economic theory, the theory of entrepreneurship and trade to explain the current trends and patterns of economic systems and processes development;
- to identify the patterns of theoretical principles of real and financial investments; the place of investments in entrepreneurial activity, their critical reflection from the standpoint of the economic agents behavior;
- to comprehensively analyze socio-economic phenomena and business processes from the standpoint of both classical rational and behavioral economies, using specialized knowledge in the theory of entrepreneurship, management and marketing activities, econometric methods of evaluation;
- to create economic and mathematical models, to interpret the results of the evaluation, to analyze and forecast the development of economic systems and processes;
- to analyze the relationships between real economy and investment markets, to evaluate and forecast their development in the conditions of globalization

<http://management.fem.sumdu.edu.ua/en/postgraduate-study>



## study program **Management**



Official title:  
**073 Management**



Number of credits:  
**60 ECTS credits**



Duration of education:  
**4 years**



Language of instruction:  
**Ukrainian, English**



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

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

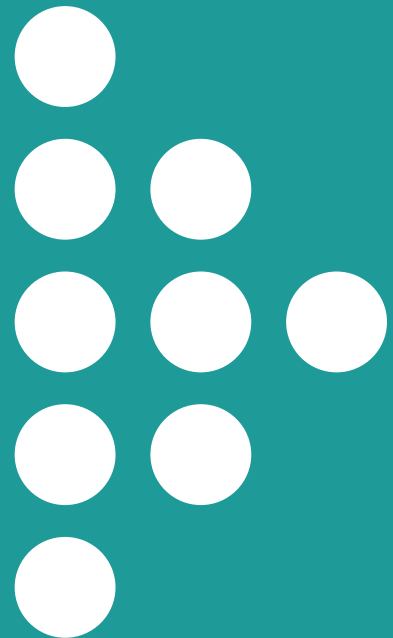
**Mykola Petrushenko**

assistant professor of the Department of Management

### 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





Official title:  
**081 Law**



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



Language of instruction:

**Ukrainian**



Duration of education:

**4 years**

## Program learning outcomes:

- formation of competencies necessary for conducting research and innovation activity, mastering the methodology of scientific and pedagogical activities, as well as conducting own scientific research in the field of law;
- the activities of public authorities ensuring stability and security of society;
- the system of criteria for external monitoring of the activities of a single law enforcement agency in the field of ensuring financial and economic security of the state;
- improvement of law-enforcement authorities system ensuring Ukraine's financial and economic security;
- concept of new innovative model of public administration of the financial system of Ukraine.

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**

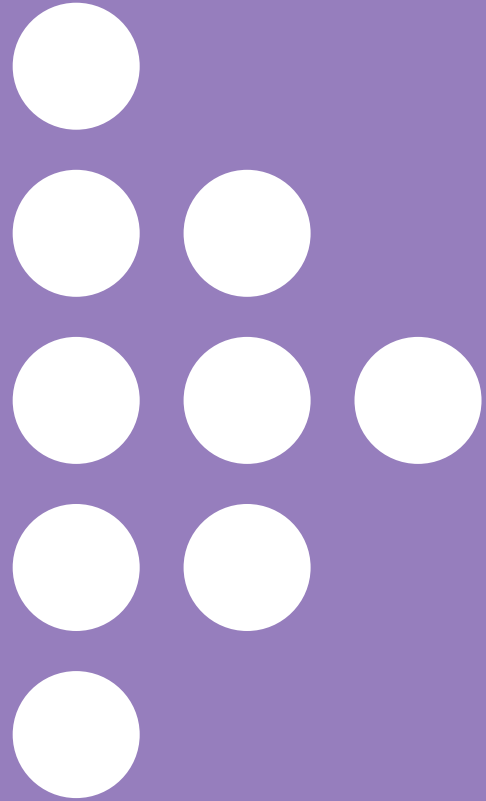
Deputy Head of the Main Department of the State Fiscal Service of Ukraine in Sumy region, tax and customs adviser to rank I, Candidate of Legal Sciences

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






**Education and  
Research Institute  
for Business  
Technologies «UAB»**


study program  
**International Business  
 Administration and Business  
 Analytics**



Language of instruction:  
**English**



Official title:  
**051 International Business Administration and Business Analytics**




Duration of education:  
**4 years**

**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.

 [http://cyber.uabs.sumdu.edu.ua/images/department/cyber/stories/files/PhD\\_Profile.pdf](http://cyber.uabs.sumdu.edu.ua/images/department/cyber/stories/files/PhD_Profile.pdf)

study program  
**Accounting  
 and Taxation**



Language of instruction:  
**English**



Official title:  
**071 Accounting and Taxation**



Duration of education:  
**4 years**

**Program learning outcomes:**

- to use international standards of quality assurance, audit, examination, other reassuring granting and related services with abundance 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>



study program

**Financial intermediation**

Official title:  
**072 Financial  
Intermediation**



Number of credits:  
**60 ECTS credits**



Preconditions:  
**Master's degree**



Language of instruction:  
**Ukrainian**



Duration of education:  
**4 years**

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

**Possible aspects of scientific problem studying:**

Ph.D. program in Financial Intermediation created for individuals who are interested in pursuing a career in financial intermediation either as an academic in higher education institutions or as professional experts in finance sector institutions and organizations. The degree holder has to be able to carry out independent and original academic research that contributes significantly to the scientific field related to financial intermediation, present and discuss research papers at external seminars and conferences, produce peer-reviewed academic publications, write good referee reports on research papers written by other scholars in the field and teach effectively at higher education institutions.

**Available sources for research:**

Each Ph.D. candidate has access to an individual desk, a desktop computer equipped with licensed operational systems from Microsoft and applied software packages and a shared printer. Candidates also have access to many software products for statistical analysis, covering a broad spectrum of possibilities needed for conducting scientific research and databases for empirical work.



**ENG** – <http://banking.uabs.sumdu.edu.ua/index.php/ua/vstupnyku/doktor-filosofii>