



Syllabus Course Program



ZP 1 Basics of the scientific research

Specialty

075 – Marketing

Institute

Institute of Economics, Management and International Business

Educational program

Marketing

Department

Marketing (201)

Level of education

Master's level

Course type

Special (professional), Mandatory

Semester

1

Language of instruction

English

Lecturers and course developers



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Candidate of technical sciences, associate professor, associate professor of the Department of Marketing

Author and co-author of more than 110 scientific and educational works. Courses: "Economic informatics", "Forecasting socio-economic processes", "CRM systems", "Business information security", "Marketing activity management".

[More about the lecturer on the department's website](#)

General information

Summary

In the theory and practice of modern higher education, great scientific potential has been accumulated, which should form the basis of the formation of a new formation of scientifically competent specialists who think creatively, navigate freely in the information space, and independently master worldview paradigms. A future specialist who has received a higher education must, regardless of the field in which he will work, easily join professional activities, put scientific knowledge into practice, and promote the development of rational creative thinking.

Course objectives and goals

Formation of a system of theoretical and practical knowledge about the main areas of scientific research, new scientific methods, the search for the most rational design, technological and organizational solutions.

Format of classes

Lectures, practical training, consultations, Individual assignment –essay. Final control in the form of an test.

Competencies

ZK6. Ability to search, process and analyze information from various sources.

SK2. The ability to correctly interpret the results of the latest theoretical research in the field of marketing and the practice of their application.

SK3. Ability to conduct independent research and interpret their results in the field of marketing.

SK9. The ability to carry out theoretical and applied research in the field of marketing at an appropriate level.

Learning outcomes

P1. To know and be able to apply modern principles, theories, methods and practical methods of marketing in practical activities.

P3. Plan and carry out own research in the field of marketing, analyze its results and justify the adoption of effective marketing decisions in conditions of uncertainty.

P5. Present and discuss the results of scientific and applied research, marketing projects in national and foreign languages.

P15. Collect the necessary data from various sources, process and analyze their results using modern methods and specialized software.

Student workload

The total volume of the course is 120 hours (4 ECTS credits): lectures - 16 hours, practical training - 16 hours, self-study - 88 hours.

Course prerequisites

Education level bachelor.

Features of the course, teaching and learning methods, and technologies

Lectures are conducted using multimedia tools (Microsoft Teams), presentations and supporting notes. At practical classes, the rules of writing scientific theses and articles are considered, specific examples of scientific research are analyzed, reports are heard on issues that are submitted for independent study. According to the nature of cognitive activity, when studying the discipline "Fundamentals of Scientific Research" the following are used: explanatory and visual problem statement; partly search and research methods. Current control: conducting tests for 15-20 minutes to assess students' understanding of the lecture material. Educational materials (lecture notes and practical tasks) are provided using presentation materials and multimedia tools.

Program of the course

Topics of the lectures

Topic 1. Science and scientific thinking. Basic concepts

The concept of science, the main functions of science. Classification of sciences. The specifics of economic science. Cyclical development of science. Scientific communication. Scientific school

Topic 2. Main categories of sciences

Features characterizing the development of science. Cyclical development of science. Fact, hypothesis, theory, concept. Scientific hypothesis: types, functions, stages of development. Methodology, method, technique

Topic 3. Scientific research. Technology of research work

The concept of scientific research. Stages of scientific research. Forming a hypothesis, methodology and research work plan. Results of scientific research: types and requirements

Topic 4. Information support of scientific work

The essence and types of scientific and technical information. Using the Internet to search for scientific and technical information. Organization of works on scientific literature. Information exchange forms. Compilation of bibliography.

Topic 5. System approach, system thinking, system analysis



Concept of system. Classification of systems. Emergence property. The principle of relativity. Systems thinking. Morphological analysis. The goal tree method. A systematic approach. Qualitative and quantitative analysis. System analysis.

Topic 6. Scientific institutions of Ukraine and organization of training of scientific personnel

Ethical norms and values of science. The concept of scientific activity, its types. Organization of the work of the scientific team. Workplace and working day of a scientist. Ethical norms and values of science. Regulation of scientific and scientific and technical activities. The Constitution of Ukraine as the main source of regulation of creative scientific activity.

Topic 7. Scientific creativity and heuristics

The concept of heuristics. Heuristic rules. Heuristic methods.

Topic 8. Methodological foundations of scientific research and creativity

Methods of finding scientific ideas, inventions. The concept of the methodology of scientific research activity. Cognitive techniques and forms of scientific research. Special methods. General scientific methods. Research methodology. Hypothesis.

Topics of the workshops

Topic 1. Science and scientific thinking. Basic concepts

Functions and tasks of science. Classification of sciences.

Topic 2. Main categories of sciences

Formation and substantiation of scientific assumptions. Evaluation of the effectiveness of the purchase and sale of licenses.

Topic 3. Scientific research. Technology of research work

Formulation of the topic, goal and tasks of scientific research in their logical content.

Planning and organization of scientific work.

Topic 4. Information support of scientific work

Information support of scientific work.

Topic 5. System approach, system thinking, system analysis

Methods of system analysis in scientific research. Evaluation of the economic efficiency of innovations aimed at reducing the level of production costs.

Topic 6. Scientific institutions of Ukraine and organization of training of scientific personnel

Creating a portrait of a modern scientist, defining his character traits.

Topic 7. Scientific creativity and heuristics

Scientific institutions of Ukraine and organization of training of scientific personnel. Management system of science development in Ukraine.

Topic 8. Methodological foundations of scientific research and creativity

The method of analogy in business. Methods of mathematical statistics. Verification of the knowledge acquired during the study of the course (tests).

Topics of the laboratory classes

Conducting laboratory work is not provided for in the curriculum.

Self-study

The course involves the completion of an individual task in the form of writing an essay on a topic agreed with the teacher. Applicants are recommended additional materials (videos, articles) for independent study and analysis.

Course materials and recommended reading

1. Основи наукових досліджень: навчальний посібник / Марта Мальська, Наталія Паньків. – Львів : Видавництво ЛНУ імені Івана Франка, 2020. - 226 с.
2. Основи наукових досліджень: навчальний посібник / Кравець Н. П. – видання 3-є, випр. і доповнене. – Київ: Вид-во НПУ імені М. П. Драгоманова, 2020. – 74 с.
3. Габович О., Кузнєцов В., Семенова Н. Українська фундаментальна наука і європейські цінності / О. Габович, В. Кузнєцов, Н Семенова. – Київ : Вид. дім «Києво-Могилянська академія», 2016. – 284 с.



3. Чернишова М. О. Формування готовності майбутніх менеджерів організації до дослідницької діяльності : наук.-метод. посібник / М. О. Чернишова ; НАПН України, Університет менеджменту освіти, Інститут менеджменту та психології. – Київ, 2013. – 172 с.
4. Інновації в науці: сучасний вимір: матеріали Міжнар. наук.-практ. інтернет-конф. молодих дослідників / [редкол.: М. А. Бойченко та ін.] ; Департамент освіти і науки Сум. облдержадмін. [та ін.]. – Суми: Цьома С.П., 2021. – 406 с.
5. Решетняк О.І. Наукова та науково-технічна діяльність в Україні: оцінка та напрямки розвитку [Текст] : монографія / О. І. Решетняк. – Харків: Лібуркіна Л. М., 2020. – 719 с. .

Assessment and grading

Criteria for assessment of student performance, and the final score structure

100% final assessment in the form of credit (20%) and current assessment (80%)
 Credit (testing) – 30 points
 Current rating:
 Abstract - 20 points
 20 points - assessment of tasks in practical classes;
 30 points - current controls in practical classes

Grading scale

| Total points | National | ECTS |
|--------------|--|------|
| 90–100 | Excellent | A |
| 82–89 | Good | B |
| 75–81 | Good | C |
| 64–74 | Satisfactory | D |
| 60–63 | Satisfactory | E |
| 35–59 | Unsatisfactory (requires additional learning) | FX |
| 1–34 | Unsatisfactory (requires repetition of the course) | F |

Norms of academic integrity and course policy

The student must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to demonstrate discipline, good manners, kindness, honesty, and responsibility. Conflict situations should be openly discussed in academic groups with a lecturer, and if it is impossible to resolve the conflict, they should be brought to the attention of the Institute's management.

Regulatory and legal documents related to the implementation of the principles of academic integrity at NTU "KhPI" are available on the website:

<http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/>

Approval

Approved by

28.08.2023



Head of the department
Diana RAIKO

28.08.2023



Guarantor of the educational program
Oleksandra KOSENKO





National Technical University
"Kharkiv Polytechnic Institute"