Syllabus
Course Program

Quality Management

Specialty	**Institute**
073 – Management	Institute of Education and Science in Economics, Management and International Business
Educational program	**Department**
Business-administration	Management (204)
Level of education	**Course type**
Bachelor's level	Special (professional), Elective
Semester	**Language of instruction**
1	English

Lecturers and course developers

Olena Prokhorenko

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PhD in Economic Sciences, Associate Professor, Head of Department of Management

Authored and co-authored over 60 scientific and methodological publications. Senior lecturer of courses "Strategic Change Management", "Self-Management", "Business Diagnostics"

More about the lecturer on the department's website
https://web.kpi.kharkov.ua/mto/about/staff/prokhorenko-2/

General information

Summary

The course is aimed at mastering the approaches and methods of quality management as well as methods and tools used in the planning, design, implementation and development of quality management systems (QMS) in accordance with the requirements of international standards ISO 9001 series.

Course objectives and goals

To provide students with theoretical knowledge and practical skills in the application of general principles, approaches and methods of projection, development, implementation, certification and continuous improvement of QMS in accordance with the provisions of ISO 9001 series.

Format of classes

Lectures, workshops, consultations, self-study, individual task. Final control in the form of differentiated grading.

Competencies

GC01. The ability to realize own rights and responsibilities as a member of society, understand the values of civil (democratic) society and the need for its sustainable development, rule of law, human and civil rights, and freedoms in Ukraine.
GC10. The ability to conduct research at an appropriate level.
SC01. The ability to identify and describe the characteristics of organizations.

SC02. The ability to analyze the results of organization activity, to compare them with the factors of the external and internal environment.
SC04. The ability to determine the functional areas of the organization and the relationships between them.
SC09. The ability to generate business ideas, to justify the feasibility and forms of their implementation as well as present them to stakeholders
SC10. The ability to work in a team and to establish interpersonal interaction in solving professional tasks.

Learning outcomes

LO 02. To keep moral, cultural, scientific values and to increase achievements of society, to use different types and forms of effective activity for maintaining a healthy lifestyle.
LO 03. To demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.
LO 04. To show skills of identification of problems and justification of management decisions.
LO 05. To describe the content of the functional areas of the organization
LO 06. To show skills of search, collecting, and analysis of information, calculation of indicators to substantiate management decisions.
LO1.2. To evaluate the effectiveness of supply chain management and to identify areas for optimization

Student workload

The total volume of the course is 150 hours (5 ECTS credits): Lectures - 20 hours, workshops - 20 hours, self-study - 110 hours.

Course prerequisites

PT 6   Fundamentals of Management
PT 7   Fundamentals of Business Analysis
PT 16   Performance Management

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

 Presentations, discussions, workshops, case-based learning, individual and teamwork, research work. Study materials are available to students through OneDrive, Google-classroom.

Program of the course

Topics of the lectures

Lecture 1. Review of trends and prospects for the development of quality management in Ukraine and in the world. Quality management evolution
Lecture 2. Business-Integrated Quality Systems. Organizational Structures. The Quality Function
Lecture 3. Integrated Planning. Customer Expectations and Needs. Benchmarking. Organizational Assessment.
Lecture 4. ISO standards for management systems. Quality management principles. PDCA technology and process approach ISO 9004. Compatibility with standards for other management systems
Lecture 5. ISO 90012015. Context of the organization. Leadership. Policy. Planning: Actions to address risks and opportunities; Quality objectives; Planning of changes.
Lecture 6. Support. Provision of resources. Organizing of procurement. Documented information
Lecture 7. Operational planning and control. Requirements for products and services. Design and development of products and services
Lecture 8. Performance evaluation. Management review. Quality audit.
Lecture 9. Corrective and preventive actions. Improvement
Lecture 10. QMS certification.

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Topics of the workshops

Workshop 1. Writing essay " How I understand quality management and what are its benefits for the organization?" and discussion
Workshop 2. "Fishbone", "5 "WHY?""
Workshop 3. "A3 Problem solving ".
Workshop 4. Initiation of the QMS project. Regulation of the working group, QMS formation project. Case study
Workshop 5. The structure of the documentation. Registers of risks and opportunities. Case study. Written assignments. Discussions
Workshop 6. Defining requirements for products and services. Design and development of new products and services. Evaluation and rating of suppliers. Audit of suppliers. Case study. Written assignments
Workshop 7. Verification and validation in the process of development and research. Case study. Written assignments. Discussions
Workshop 8. Determining and analyzing the degree of satisfaction of consumer requirements. Non-compliant product management. Case study. Written assignments
Workshop 9. Corrective and preventive actions. Case study. Written assignments
Workshop 10. Final test and discussion

Topics of the laboratory classes

no laboratory classes.

Self-study

Writing a critical essay " How I understand quality management and what are its benefits for the organization?".
Review of the structure, analysis of the scope and conditions of application of the ISO 9001 standard. ISO 9004. Compatibility with standards for other management systems
Plotting Gantt's chart for QMS implementation
Preparation to discussion "The role and importance of the senior management representative in the QMS"
Reviewing technological documentation: Technological regulations, technical conditions, specifications
Developing Questionnaire as a method of gathering information
Final online quiz.

Course materials and recommended reading

1 ISO 9001:2015 Quality management systems — Requirements
2 ISO 9000:2015 Quality management systems — Fundamentals and vocabulary
3 http://www.iso.org/iso/home.html;
4 http://www.irca.org/;
5 Pyzdek, T., & Keller, P. (2013). Handbook for quality management: A complete guide to operational excellence. McGraw-Hill Education.
6 Total Quality Management: Key Concepts and Case Studies (D.R Kiran, 2016).
7 Conformity assessment. Requirements for bodies providing audit and certification of management systems : ISO/IEC 17021:2011 – [Valid from 2011-02-01]. – Second edition, 2011. – 44 p
8 The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer by Jeffrey Liker McGraw Hill; 2nd edition (December 1, 2020)
9. Шаповал, М. І. Менеджмент якості: підруч. / М. І. Шаповал. – К. : Знання, 2013. – 484 с.
10 Unlocking Lean Six Sigma: A Competency-Based Approach to Applying Continuous Process Improvement Principles and Best Practices by Dr. Wesley E. Donahue, Kindle Edition

Assessment and grading

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

100% Final assessment as a result of final test (40%) and Continuous assessment (60%).

• 60% practical assessment including problem sheets, reporting on individual work, and case-studies.

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

Head of the department
Olena PROKHORENKO

Guarantor of the educational program
Olena Prokhorenko

National Technical University "Kharkiv Polytechnic Institute"