#### card of course

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| Subject name | Quantitative methods in management |

1. The placement of the subject in the study system

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| --- | --- |
| 1.1. Field of study | Management |
| 1.2. Form and path of study | Full-time/Part-time |
| 1.3. Level of education | First-cycle studies |
| 1.4. Study profile | Practical |

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| 1. 5. Specialty | - |
| 1.6. Subject Coordinator | Dr hab. Mariya Fleychuk |

2. General characteristics of the subject

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| 2.1. Belonging to a subject group | Directional/Practical |
| 2.2. Number of ECTS | 2 |
| 2.3. Language of lectures | English |
| 2.4. Semesters in which the subject is taught | III |
| 2.5.Criteria for selecting course participants | - |

1. Learning outcomes and course delivery
   1. Subject Objectives

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| No. | Subject Objectives |
|
| C1 | Providing knowledge about quantitative methods used in managing organizations. |
| C2 | Developing practical skills in applying management methods adequate to environmental conditions dictated by the change and uncertainty of the VUCA world. |
| C3 | Acquiring the ability to select appropriate quantitative methods for the nature and purpose of the organization's functioning in the context of its mission. |

* 1. Subject-specific learning outcomes, divided into knowledge , skills and competences , with reference to the directional learning outcomes

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| --- | --- | --- | --- | --- | --- | --- |
| No. | Description of subject  learning outcomes | Reference to  directional effects  learning (symbols) | Method of implementation (mark "X") | | | |
| ST | | NST | |
| Classes at the University | Activities on  the platform | Classes at the University | Activities on  the platform |
| After passing the course, the student knows and understands **the knowledge** | | | | | | |
| W1 | Knows quantitative methods and the conditions for their application in managing an organization operating in a VUCA world. | Z1\_W01  Z1\_W08 | X |  |  | X |
| W2 | Knows the specificity of quantitative methods compared to qualitative ones, as well as the circumstances that favor the implementation of the optimal method in a management strategy. | X |  |  | X |
| After passing the course, the student is **able** to: | | | | | | |
| U1 | Is able to select the appropriate method for the nature and purpose of the organization's functioning in the context of its mission. | Z1\_U02  Z1\_U04 | X |  | X |  |
| U2 | Is able to modify the organization's management strategy depending on internal and external conditions based on an appropriate management method. | X |  | X |  |
| After completing the course, the student is ready to take part in **social competences.** | | | | | | |
| K1 | Is willing to continually learn new methods, following their evolution. | Z1\_K01 | X |  | X |  |

3.3. Forms of teaching and their number of hours - Full-time studies (ST), Part-time studies (NST)

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| Path | Lecture | Exercises | Design | Workshop | Laboratory | Seminar | Lecturer | Classes conducted using distance learning methods and techniques in the form of a lecture | Other | **ECTS points** |
| **ST** | 15 |  | 15 |  |  |  |  |  |  | 2 |
| **NST** |  |  | 10 |  |  |  |  | 10 |  | 2 |

3.4. Content of education (separately for each form of classes: (W, ĆW, PROJ, WAR, LAB, LEK, OTHER). It should be marked (X) how the given content will be implemented (classes at the university or classes on the e-learning platform conducted using distance learning methods and techniques)

TYPE OF CLASS: LECTURE

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| --- | --- | --- | --- | --- | --- | --- |
| No. | Content of the course | Reference to subject-specific learning outcomes | Method of implementation (mark "X") | | | |
| ST | | NST | |
| **Classes at the University** | **Activities on  the platform** | **Classes at the University** | **Activities on  the platform** |
| 1. | Introduction to quantitative methods in organizational management. Quantitative vs. qualitative methods. Basic concepts of quantitative analysis . Areas of application of quantitative methods in organizational management. | W1, W2 | X |  |  | X |
| 2. | Quantitative methods in logistics management | W1, W2 | X |  |  | X |
| 3. | Quantitative methods in marketing management | W1, W2 | X |  |  | X |
| 4. | Quantitative methods in human resources management | W1, W2 | X |  |  | X |
| 5. | Quantitative Methods in Strategic Management | W1, W2 | X |  |  | X |
| 6. | Quantitative methods in knowledge management and new technologies | W1, W2 | X |  |  | X |
| 7. | Summary of classes and discussion of grades |  | X |  |  | X |

TYPE OF CLASS: PROJECT

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Content of the course | Reference to subject-specific learning outcomes | Method of implementation (mark "X") | | | |
| ST | | NST | |
| **Classes at the University** | **Activities on  the platform** | **Classes at the University** | **Activities on  the platform** |
| 1. | Quantitative methods and methods of solving problems and challenges in conditions of uncertainty, risk and chaos. | U1, U2 | X |  | X |  |
| 2. | Implementation of the optimal organization management method depending on industry, technological and environmental conditions. | U1, U2 | X |  | X |  |
| 3. | Project management based on quantitative methods. | U1, U2, K1 | X |  | X |  |
| 4. | Development of a business project based on quantitative or mixed methods | U1, U2, K1 | X |  | X |  |
| 5. | Analysis and research of the market, distribution channels and competitive environment based on quantitative methods and statistics | U1, U2 | X |  | X |  |
| 6. | Organizational management strategy in the context of change and chaos determined by the specificity of the VUCA world | U1, U2 | X |  | X |  |
| 7. | Summary of classes and discussion of grades |  | X |  | X |  |

3.5. Methods of verifying learning outcomes (indication and description of methods of conducting classes and verification of achievement of learning outcomes and method of documentation)

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| --- | --- | --- | --- |
| Subject Effects | Teaching methods | Methods of verifying learning outcomes | Documentation methods |
| KNOWLEDGE | | | |
| W1-W2 | Conversational lecture, guided discussion | Test of knowledge on the topics discussed during classes – passing the lecture | Test sheet |
| SKILLS | | | |
| U1-U2 | Project Based Learning | Project credit – preparation of a business project based on quantitative methods consisting in the development of a hypothetical business project - for the financing of which the beneficiary develops a business plan that is adequate to the assumptions of supporting economic initiatives. The business plan project should be prepared on the form of application for a specific subsidy in force at the Marshal's Office of the Lublin Voivodeship. | Written work with a grade given by the instructor (project) |
| SOCIAL COMPETENCES | | | |
| K1 | Project Based Learning | Project credit - preparation of a business project based on quantitative methods consisting in the development of a hypothetical business project - for the financing of which the beneficiary develops a business plan adequate to the assumptions of support for economic initiatives. The business plan project should be prepared on the form of application for a specific subsidy in force at the Marshal's Office of the Lublin Voivodeship. | Written work with a grade given by the instructor (project) |

3.6. Assessment criteria for the achieved learning outcomes

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| Learning effect | For a grade of 3 or "pass."  the student knows and understands/is able to/is ready to | For a grade of 3.5, the student knows and understands/is able to/is ready to | For a grade of 4, the student knows and understands/is able to/is ready to | For a grade of 4.5, the student knows and understands/is able to/is ready to | For a grade of 5, the student knows and understands/is able to/is ready to |
| W | 51-60% of knowledge indicated in learning outcomes | 61-70% of knowledge indicated in learning outcomes | 71-80% of knowledge indicated in learning outcomes | 81-90% of knowledge indicated in learning outcomes | 91-100% of knowledge indicated in learning outcomes |
| U | 51-60% of skills indicated in learning outcomes | 61-70% of skills indicated in learning outcomes | 71-80% of skills indicated in learning outcomes | 81-90% of skills indicated in learning outcomes | 91-100% of skills indicated in learning outcomes |
| K | 51-60% of skills indicated in learning outcomes | 61-70% of skills indicated in learning outcomes | 71-80% of skills indicated in learning outcomes | 81-90% of skills indicated in learning outcomes | 91-100% of skills indicated in learning outcomes |

3.7. Literature

**Basic**

1. Griffin Ricky W., Fundamentals of management, Cengage Learning Boston 2016
2. K. Szymańska, *Kompendium metod i technik zarządzania*, siedliska 2019
3. W. błaszczyk, *Metody organizacji i zarządzania*, warszawa 2013

**Supplementary**

1. Westover Jonathan H. (red.), Strategic organizational development and change, HCI Press Cincinnati 2014
2. M. K. Szpakowski, *Przedsiębiorczość. Zarządzanie przedsiębiorstwem od A do Z*, Wydawnictwo Norbertinum, Lublin 2023.
3. A. K. Koźmiński, D. Jemielniak. D. Latusek-Jurczak, A. Pikos, *Zarządzanie. Nowe otwarcie*, Poltext Sp. z o.o., Warszawa 2023.

4. Student workload - ECTS points balance

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| --- | --- | --- |
| **Types of student activity** | **Student Load** | |
| **ST** | **NST** |
| **Classes requiring direct contact between the student and the academic teacher at the university premises** | **30** | **20** |
| Classes included in the study plan | 30 | 20 |
| **Student's own work** | **20** | **30** |
| Ongoing preparation for classes, preparation of project work/presentations/etc. | 10 | 15 |
| Preparation for passing classes | 10 | 15 |
| **TOTAL STUDENT HOURLY LOAD** | **50** | **50** |
| **Number of ECTS points** | **2** | **2** |

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| Last change date | 30/09/2024 |
| The changes were introduced | ZAZ Education Quality Team |
| The changes were approved | Mgr Anna Bielak |