



Subject card

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| Subject name and code | Norms and standards in an enterprise, PG_00056143 | | | | | | |
| Field of study | Management and Production Engineering | | | | | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | | | 2023/2024 | | |
| Education level | first-cycle studies | Subject group | | | | | |
| Mode of study | Full-time studies | Mode of delivery | | | at the university | | |
| Year of study | 2 | Language of instruction | | | Polish | | |
| Semester of study | 4 | ECTS credits | | | 7.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | prof. dr hab. inż. Jerzy Łabanowski | | | | | |
| | Teachers | | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 15.0 | 30.0 | 15.0 | 0.0 | 90 |
| | E-learning hours included: 0.0 | | | | | | |
| Learning activity and number of study hours | Learning activity | Participation in didactic classes included in study plan | | Participation in consultation hours | | Self-study | SUM |
| | Number of study hours | 90 | | 0.0 | | 0.0 | 90 |
| Subject objectives | To acquaint students with standardization and normalization systems functioning in an enterprise. The task of these systems is to determine the application of optimal criteria and guidelines for the use of resources of their condition and the way of process implementation. | | | | | | |

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| Learning outcomes | Course outcome | Subject outcome | Method of verification |
| | [K6_U01] can find the necessary information in professional literature, databases and other sources, knows basic scientific and technical journals in the field of production management, quality and operation management, can integrate the obtained information, formulate conclusions and justify opinions | The student will look for necessary information in the literature on aspects of standardization and normalization. The student is able to verify various technical standards for their usefulness in product development. | [SU2] Assessment of ability to analyse information |
| | [K6_U06] when formulating and solving engineering tasks a student can see aspects of system management and organization of individual and as a team, taking into account the human factor, has necessary preparation for work in an industrial environment, and knows the rules and standards related to occupational health and safety | The student is able to formulate basic requirements necessary to create documentation within the scope of local normative and standardization acts. The student is able to interpret basic normative acts in relation to the properties of manufactured elements, work environment and environmental protection. | [SU1] Assessment of task fulfilment |
| | [K6_W08] has basic management knowledge, including process and product quality management, and detailed knowledge of integrated and standardized quality, environmental, health and safety management systems | The student knows basic rules of normalization and standardization. The student understands benefits and threats resulting from applying norms and standards in various aspects of the business activity. | [SW1] Assessment of factual knowledge |
| | [K6_W10] has basic knowledge necessary to understand the economic determinants of engineering activities and economic law, to improve the work environment affecting productivity, costs and quality of work | The student understands the technical and economic benefits of standardization and normalization. The student knows legal references to standardization and normalization. | [SW3] Assessment of knowledge contained in written work and projects |
| [K6_K01] feels the need for self-realization by learning throughout life, is looking for modern and innovative solutions in their actions, is able to think creatively and act in an entrepreneurial way | The student seeks new and innovative solutions in setting standards and norms in implemented technical solutions. | [SK5] Assessment of ability to solve problems that arise in practice | |
| Subject contents | History and development of standardisation, Modern standardisation - legal regulations, Organisation of standardisation activity, Principles of standardisation activity, General guidelines for planning standardisation activities, Processes of preparing projects and approving standardisation activities, Types and structure of standards, Methods of proceeding in standardisation, Standardisation supporting management processes, Certification basis, Company standardisation and standardisation, Basis and principles of standardisation, Areas of standardisation, Benefits from standardisation and standardisation. | | |
| Prerequisites and co-requisites | | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | Reports of laboratory | 60.0% | 25.0% |
| | Colloquium exercises | 60.0% | 25.0% |
| | Colloquium lecture | 60.0% | 25.0% |
| Project | 60.0% | 25.0% | |
| Recommended reading | Basic literature | <ol style="list-style-type: none"> Jerzy Łunarski: Normalizacja i Standaryzacja, Wydawnictwo Politechnik Rzeszowskiej 2014r. Jerzy Łunarski: Zarządzanie jakością - standardy i zasady, WNT, Warszawa 2008r Marek Bugdol: System zarządzania jakością wg normy ISO 9001:2015, Wydawnictwo Onepress Helicon, 2018. | |
| | Supplementary literature | <ol style="list-style-type: none"> Polskie Normy Europejskie Normy Zharmonizowane Normy ISO | |
| | eResources addresses | Adresy na platformie eNauczanie: | |

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| <p>Example issues/ example questions/ tasks being completed</p> | <ol style="list-style-type: none"> 1. A broad view of the concept of "norm" 2. Unconscious "normalization activity" of nature 3. Standardized systems in the development of civilization 4. Early prenormalization activities 5. Laws as obligatory norms 6. Customary and ethical standards 7. Origins of organized standardization activity 8. Sources and foundations of standardization 9. General Guidelines for Standard-setting 10. Planning for standardization activities 11. Standardization in quality management 12. Standardization in safety management 13. Standardization in personnel management 14. Standardization in other areas of organizational management 15. Processes for drafting standards 16. Approval and use processes for standards 17. Classification and labelling 18. Standardization in personnel management 19. Standardization in design processes 20. Standardization of production work processes |
| <p>Work placement</p> | <p>Not applicable</p> |