COURSE DESCRIPTION CARD - SYLLABUS

Course name
Protection of intellectual property, safety and work ergonomics [S1TOZ1>OWIBiEP]

Course

Field of study
Circular System Technologies

Year/Semester
1/1

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
15

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

1,00

Coordinators

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Lecturers

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Prerequisites

Student has consolidate knowledge from natural science, mathematics and physics, taught in secondary school

Course objective

Presenting basic issues concerning ergonomics and Occupational Health and Safety in modern companies and in everyday private life. Giving patterns for solving problems concerning the formation of conditions at work with use of, for example, diagnostics and reduction of occupational risk and designing ergonomic solutions. Presenting relations between technique, human well-being, ecology, economy and sociology. Acquainting students with principle legal regulations from the area of the copyright of the industrial property law and with procedures concerning inventions.

Course-related learning outcomes

Knowledge:
k_w01 (p6s_wg) has knowledge of mathematics that allows the use of mathematical methods to perform calculations needed in engineering practice
k_w02 (p6s_wg) has knowledge of physics and chemistry to understand phenomena and changes

occurring in technological and environmental processes
k_w18 (p6s_wg) has basic knowledge of properties, production and processing of construction materials used in construction of machines and devices
k_w27 (p6s_wk) has basic knowledge of intellectual property protection and patent law
k_w28 (p6s_wk) knows basic principles of occupational health and safety as well as ergonomics

Skills:
k_u04 (p6s_uu) has the ability to self-study, is able to ethically use source information in polish and in a foreign language, is able to read with comprehension, carries out analyses, syntheses, summaries, critical assessments and draws correct conclusions
k_u08 (ps6_uo) knows how to plan and organize individual work as well as team work

Social competences:
k_k01 (p6s_kr) behaves professionally in all situations, takes responsibility for decisions made in the context of professional duties, acts in accordance with moral principles and principles of professional ethics
k_k02 (p6s_kr) demonstrates independence and inventiveness in individual work as well as effectively interacts in a team, playing various roles in it; objectively assesses the effects of own work and work of team members
k_k04 (p6s_kr; p6s_kk) takes care of safety of his own work and that of others, applies appropriate procedures and rules in emergencies
k_k08 (p6s_kr; p6s_kk; p6s_ko) participates in discussions and knows how to conduct discussions, is open to various opinions and is ready to assertively express feelings and criticisms

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
In the case of full-time classes:
Single-choice written test on eCourse platform after completing the series of lectures (80 points).
Preparation and delivery of presentation about the protection of intellectual property (20 points).
In the case of on-line classes:
Single-choice written test on eCourse platform after completing the series of lectures (80 points).
Written essay about the protection of intellectual property (20 points).

Programme content

Objectives and tasks of the OSH activity and the ergonomic engineering. Legal documents connected with the OSH activity and ergonomic standards.
Threats identification on
workstations. The patent law, protection law and registration law.

Course topics

Objectives and tasks of the OSH activity and the ergonomic engineering. Systems of work protection in Poland and other countries. Legal documents connected with the OSH activity and ergonomic standards. Systems human-to-technical object as an example of a workstation. Threats identification on workstations. Technical and organizational methods of reducing the excessive occupational risk. The assessment of the physical workload. The assessment of the psychical workload. Anthropometric data in designing machines and workspace. Apparatus measurements and assessment of material parameters of the work environment. Examples of technical and organizational solutions for upgrading the safety and ergonomic quality of machines and work conditions.
The idea of copyright. Basic legal regulation of the copyright. The notion of industrial property and forms of its legal protection. The patent law, protection law and registration law. Types of creative works and forms of their protection: invention, utility model, industrial design, trademark, geographical indications, topography of integrated circuits, streamlining conclusion. Proceedings in the patent office the Republic of Poland. European patent.

Teaching methods

Lectures with multimedial presentations and tasks with Excel sheet and applications.

Bibliography

Basic
1. Tytyk E., Bezpieczeństwo i higiena pracy, ergonomia i ochrona własności intelektualnych. Wydawnictwo Politechniki Poznańskiej, Poznań, 2017
2. Koradecka D. (red.), Nauka o pracy - bezpieczeństwo, higiena, ergonomia. Pakiet edukacyjny dla uczelni wyższych, (8 tomów); Wydawnictwo Centralnego Instytutu Ochrony Pracy, Warszawa, 2000 www.nop.ciop.pl
3. Horst W. (red.), Ergonomia z elementami bezpieczeństwa i ochrony zdrowia w pracy (4 tomy); Wydawnictwo Politechniki Poznańskiej, Poznań, 2011
4. Horst W., Ryzyko zawodowe na stanowisku pracy, Część I. Wyd. Politechniki Poznańskiej, Poznań, 2004
5. https://prawokultury.pl/kurs/media/krotki-kurs-wlasnosci-intelektualnej-podrecznik.pdf
Additional
1. Tytyk E., Butlewski M., Ergonomia w technice; Wydawnictwo Politechniki Poznańskiej, Poznań, 2011
2. Ustawa z dn. 04 lutego 1994 r. o prawie autorskim i prawach pokrewnych.
3. Ustawa z dn. 30 czerwca 2000 r. Prawo własności przemysłowej.
4. Berkowska A., Drzewiecka M., Mrugalska B., Świadomość pracodawców o istocie bezpieczeństwa pracy a poziom wypadków przy pracy w małych i średnich przedsiębiorstwach, [w:] Zeszyty Naukowe Politechniki Śląskiej, Seria: Organizacja i Zarządzanie, nr 71/2014, s. 21-31, ISSN 1641-3466

Breakdown of average student's workload

	Hours	ECTS
Total workload	28	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	13	0,50