COURSE DESCRIPTION CARD - SYLLABUS

Course name
Shaping the environment for people with special needs [N1IBiJ1>KŚ]

Course

Field of study
Safety and Quality Engineering

Year/Semester
3/5

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
elective

Number of hours

Lecture
9

Laboratory classes
0

Other
0

Tutorials
9

Projects/seminars
9

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

Basic knowledge of the distribution of needs in the general population - knowledge of ergonomics and psychology.

Course objective

Familiarizing students with the issues of the organization of workstations for people with disabilities and about various characteristics of abilities. Acquainting with the principles and methods used in the assessment, modeling and removal of barriers for users with different performance characteristics.

Course-related learning outcomes

Knowledge:
1. Has advanced knowledge of the life cycle of products, devices, objects, systems and technical systems [K1_W06].
2. Knows the fundamental dilemmas of modern civilization and development trends as well as the best practices in the field of safety engineering in shaping the work of people with special needs [K1_W10].

Skills:

1. Is able to recognize systemic and non-technical, as well as socio-technical, organizational and economic aspects in engineering tasks [K1_U03].
2. Is able to prepare the necessary resources to work in shaping the work of people with special needs in the organization and knows the safety rules related to this work and is able to enforce their application in practice [K1_U05].
3. Is able to identify changes in requirements, standards, regulations, technical progress and labor market reality in the field of diversity management in the organization, and on their basis determine the need to supplement knowledge [K1_U12].

Social competences:
1. Is able to notice cause-and-effect relationships in the implementation of set goals and use ranks in relation to the importance of alternative or competing tasks [K1_K01].
2. Is able to initiate activities related to the formulation and transfer of information and cooperation in society in shaping the work of people with special needs [K1_K05].
3. Is aware of the responsibility for one's own work and is ready to obey the principles of teamwork and take responsibility for jointly performed tasks [K1_K07].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:
a) in the field of exercises: current checking of knowledge and skills during exercises
b) in the field of lectures: on the basis of a discussion on the material assimilated at previous lectures;
c) in the scope of the project, current assessment of the degree of completion of individual project tasks;
Summative assessment:
a) in the field of exercises: on the basis of the results of the average of partial grades of the forming assessment
b) in the field of lectures: exam in the form of a written test;
c) in the scope of the project, the assessment of the way of describing the way of solving the given design problem and the degree of implementation of individual steps.
pass threshold: 51%

Programme content

Definitions, classifications of abilities, Specifications of the needs of people with different levels of abilities, Special rights of disabled employees (prohibition of discrimination, working time limits, prohibition of night and overtime work, breaks at work, employment rules), Institutional assistance in the field of employing disabled people; Design standards for people with disabilities, the elderly; Universal Design and its various varieties; Solutions and devices limiting the effects of various efficiency; ergonomics of people with disabilities - solutions supporting the work of people with various abilities; Organizational innovations supporting the employment of people of various abilities.

Course topics

- Definitions of fitness
- Classifications of abilities
- Specifications of needs of persons with different levels of disability
- Specific rights of employees with disabilities (prohibition of discrimination, working time limits, prohibition of night work and overtime, breaks, employment rules)
- Institutional support for the employment of people with disabilities
- Standards in design for people with disabilities
- Standards in design for older people
- Universal Design and its variations
- Solutions and devices to limit the effects of varying disabilities
- Ergonomics for people with disabilities - solutions to support the work of people with diverse disabilities
- Organisational innovations to support the employment of people with a range of disabilities
- Adaptations of workstations for people with disabilities
- Assistive technologies in the workplace for people with a range of disabilities
- Training programmes for employees with disabilities

- Financial support for employers employing people with disabilities
- Best practice examples of employment of people with disabilities
- Role of vocational counsellors in integrating people with disabilities into the labour market
- Legal aspects of employment of disabled persons
- Accessibility of the working environment for people with disabilities

Teaching methods

Lectures with multimedia presentation; task exercises on topics related to the lectures and the project;

Bibliography

Basic:
Butlewski M., Ergonomic design in the face of the dynamics of the human resource deficit, Poznań University of Technology 2018, ISBN: 978-83-7775-506-8; 255 pages
Branowski B., Zabłocki M. 2006, Creation and contamination of design principles and construction principles in designing for people with disabilities, [in]: Product ergonomics. Ergonomic principles of product design, (ed.) Jan Ja-błoński, Wyd. Poznań University of Technology, 2006, ISBN: 83-7143-238-0
Smoliński D., Creation and evaluation of workplaces for people with disabilities; Publisher: ODDK; ISBN code: 8371871570

Additional:
Bromley, D. (1969) Psychology of aging, Warsaw State Scientific Publishers, 1969
Butlewski, M. (2012). The issue of product safety in contemporary design. Safety of the System, Technical, Organizational and Human Work Safety Determinants. Ed. Simon Salamon. Ed. PC freq. Częstochowa, 1428-1600.
Kabsch A. 2003, Needs for rehabilitation in the foreseeable future, in: Ergonomics of the disabled in the future, ed. J. Lewandowski, J. Lecewicz-Bartoszewska, M. Sekieta, Wyd. Of the Lodz University of Technology, Lodz
Kurkus-Rozowska B. 2002, The impact of rehabilitation on the improvement of physical fitness of people with physical disabilities, Work Safety, 3/2002, p. 21
Marchewka A., Dąbrowski Z., Żoładź JA, (2013) Physiology of aging: prevention and rehabilitation / science editor .. PWN Publishing House, Warsaw 2013.
Steuden S. Psychology of aging and old age. OWN. Warsaw 2011
Włodarczyk J. (1987), Designing apartments for the elderly, Silesian University of Technology, Gliwice

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	27	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	73	3,00