



COURSE DESCRIPTION CARD - SYLLABUS

Course name

The organization of work of the seniors

Course

Field of study

Safety Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

II/3

Profile of study

general academic

Course offered in

polish

Requirements

elective

Number of hours

Lecture

15

Tutorials

15

Laboratory classes

30

Projects/seminars

Other (e.g. online)

Number of credit points

6

Lecturers

Responsible for the course/lecturer:

dr hab. Eng. Marcin Butlewski

Responsible for the course/lecturer:

dr inż. Jarosław Gabryelski

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Prerequisites

The student has basic knowledge in the field of ergonomics and work organisation



Course objective

The aim of the course is to learn the principles of seniors' work organization and support systems for aging societies

Course-related learning outcomes

Knowledge

knows the issues of the life cycle of products, devices, facilities, systems and technical systems dedicated to special populations

knows development trends and best practices in safety engineering in the field of design for the elderly

is able to correctly select the sources and information derived from them, making an assessment, critical analysis and synthesis of this information

can see in engineering tasks system and non-technical aspects as well as socio-technical, organizational and economic aspects regarding the employability of people with different levels of fitness

is able to prepare the necessary resources to work in an industrial environment and knows the safety rules associated with this work and is able to force their application in practice

Skills

can present, using properly selected means, a problem that falls within the framework of security engineering

is able to identify changes in requirements, standards, regulations and technical progress and the reality of the labor market, and based on them determine the need to supplement knowledge

Social competences

is able to see the cause-and-effect relationships in achieving the set goals and rank the significance of alternative or competitive tasks

is aware of the recognition of the importance of knowledge in solving problems in the field of security engineering and continuous improvement

is aware of responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly performed tasks

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment of individual exercises and subsequent stages of projects presented to the teacher

Summative assessment - lecture test and project defense

Programme content

Dynamics of the aging process of societies and its measures,



The problem of fitness with age

Models for assessing functionality and efficiency

Changes occurring with age

Methods of counteracting the problems of aging of societies

Age-Neutral Design? Age-neutral projects

Programs promoting barrier removal and reduction of ergonomic stress at workplaces in order to provide greater safety and comfort for older employees,

Computer simulation models of older employees

Integrated Age Management Strategy

In the project, students will write down company policy regarding the employment of people of different age and create tools that allow the company to solve problems in adjusting positions and structure.

Teaching methods

Lecture, discussion. Classical problem method, Case method, Discussions

Bibliography

Basic

Butlewski M., Projektowanie ergonomiczne wobec dynamiki deficytu zasobów ludzkich / Marcin Butlewski (WIZ) / red. Krystyna Bubacz - Poznań, Polska : Wydawnictwo Politechniki Poznańskiej, 2018 - 255 s.

Butlewski M, 2017 Starzenie się społeczeństw europejskich wyzwaniem dla ergonomii przemysłowej, Niepełnosprawność - zagadnienia, problemy, rozwiązania - 2017, nr 4, s. 28-56

Butlewski M., Tytyk E., Inżynieria ergonomiczna dla aktywizacji osób starszych, Praca i Zabezpieczenie Społeczne 8/2015, s. 50 - 59

Żołądź J.A., (2013) Fizjologia starzenia się : profilaktyka i rehabilitacja / red. nauk.. Wydawnictwo PWN, Warszawa 2013.

Additional

Butlewski, M., Tytyk, E., Wróbel, K., & Miedziarek, S. (2014). Heuristics in Ergonomic Design of Portable Control Devices for the Elderly. In Universal Access in Human-computer Interaction: Aging and Assistive Environments: 8th International Conference, Uahci 2014, Held As Part of Hci International 2014, Heraklion, Crete, Greece, June 22- (pp. 24-33). Springer-Verlag New York Inc

Butlewski, M., 2014, Practical Approaches in the Design of Everyday Objects for the Elderly, in L. Slatineanu, V. Merticaru, G. Nagit, M. Coteata, E. Axinte, P. Dusa, L. Ghenghea, F. Negoescu, O. Lupescu,



I. Tita, O. Dodun, and G. Musca, eds., Engineering Solutions and Technologies in Manufacturing: Applied Mechanics and Materials, v. 657, p. 1061-1065

Butlewski, M., & Jabłońska, J. (2014). Ergonomic model of hotel service quality for the elderly and people with disabilities. In Occupational Safety and Hygiene II-Selected Extended and Revised Contributions from the International Symposium Occupational Safety and Hygiene, SHO (pp. 633-638).

Butlewski M., Rembiasz M., (2015), Rola makroergonomii w przeciwdziałaniu wykluczeniu zawodowemu pracowników w wieku 50+, w: Ergonomia niepełnosprawnym. Aktywizacja zawodowa, (red.) Lecewicz-Bartoszewska J., Polak Sopińska A., Łódź, Wydawnictwo Politechniki Łódzkiej.+,

Wiśniewski, Z. (Ed.). (2009). Zarządzanie wiekiem w organizacjach wobec procesów starzenia się ludności. Towarzystwo Naukowe Organizacji i Kierownictwa "Dom Organizatora".

Bugajska, J., Makowiec-Dąbrowska, T., & Wągrowaska-Koski, E. (2010). Zarządzanie wiekiem w przedsiębiorstwach jako element ochrony zdrowia starszych pracowników. Medycyna Pracy, 61(1), 55-63.

Breakdown of average student's workload

	Hours	ECTS
Total workload	120	6,0
Classes requiring direct contact with the teacher	60	3,0
Student's own work (literature studies, preparation for classes/tutorials, preparation for tests/exam, project preparation) ¹	60	3

¹ delete or add other activities as appropriate