

Course name	Ergonomics
Entity running the course	Faculty of Interior Architecture and Design
Entity for which the course has been prepared	Departmet of Design
Course type	Core / obligatory
Year of study / semester, type of studies	Year I, sem. I, full-time master's degree
ECTS credits	
Academic tutor	Ass. prof. Marcin Kuliński, PhD
Aim of the course	Getting to know the tools used for ergonomic evaluation of technical objects, used at work (the tools) and beyond (everyday objects), as well as the techniques used in user centered design.
Prerequisites	none
Learning outcomes:	
- knowledge	Student understands the necessity to consider user's needs during design process, regarding tools, machines and everyday objects. Student knows the basic tools of analysis and ergonomic evaluation of workplaces and tools, their organisation and material environment, in which the work is performed. Student has sufficient knowledge about work stages necessary for user centered design.
- skills	Student can accurately select methods and tools for a specific design problem. Student can utilize user research during requirements analysis, prototyping and testing of proposed solutions. Student can use basic statistical tools (variation analysis, t-Student test, Chi-square test) to make conclusions about

qualities of the object which is being designed or ergonomically estimated.

personal and social competence

Student can effectively cooperate with other group members, in a task oriented project. Student can objectively judge effects of their work, considering the goals assigned to their team.

Course content

Subject-based project executed in small teams, which aim to create an ergonomic object, which is useful and human friendly, such as: all-purpose AV pilot, a mobile phone for elderly people, a handy vacuum cleaner, an armchair designed for computer work, a washing machine, a set of home tools for handicapped people.

Course form and number of course hours

15 hours project

Assessment methods and criteria

Participation in consultations, task execution at every stage of a project, and final result in form of a dummy, technical drawings, detailed instructions, etc.

Assessment type

Group review and individual assesments.

Literature

Etienne Grandjean, Fitting the task to the Man. An ergonomic approach, Taylor & Francis 1980

Donald A. Norman, The design of everyday things, Doubleday Books 1990 Danuta Koradecka (red.), Bezpieczeństwo pracy i ergonomia, CIOP 1997 Jan Młodkowski, Aktywność wizualna człowieka, Wydawnictwo Naukowe PWN 1998

Adam Gedliczka, Atlas miar człowieka. Dane do projektowania i oceny ergonomicznej, CIOP 2001

Edwin Tytyk, Projektowanie ergonomiczne, Wydawnictwo Naukowe PWN 2001 Robert Proctor, Trisha Van Zandt, Human Factors in Simple and Complex Systems, Allyn and Bacon 1994

Waldemar Karwowski (red.), International Encyclopedia of Ergonomics and Human Factors, Taylor & Francis 2001

Materiały dydaktyczne, dostępne w serwisie Laboratorium Ergonomii Politechniki Wrocławskiej http://ergonomia.ioz.pwr.edu.pl/

Teaching aids

Language of instruction

Polish