SUBJECT DATASHEET

DESIGN FOR SPECIAL NEEDS

BMEGT52AT22

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
DESIGN FOR SPECIAL NEEDS

ID (subject code)	BMEGT52AT22

Type of subject
contact lessons

Course types and lessons

Type	*Lessons*
Lecture	2
Practice	2
Laboratory	0

Type of assessment
mid-term grade

Number of credits
5

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Tóvölgyi Sarolta	assistant professor	tovolgyi.sarolta@gtk.bme.hu

Educational organisational unit for the subject
Department of Ergonomics and Psychology

Subject website
https://edu.gtk.bme.hu

Language of the subject
magyar - HU

Curricular role of the subject, recommended number of terms

Direct prerequisites

Strong	None
Weak	None
Parallel	None
Exclusion	None

Validity of the Subject Description
Pre-2017, next review September 2021.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The aim of the course is to familiarize students with the principles of universal design, barrier-free design and design for special needs, related technical recommendations and technologies. Accordingly, within the course, we will address concepts, methods, and practical examples that will help prospective designers be able to design products, services, and physical environmental elements that can be used by as wide range of users as possible. Within the framework of the course, the characteristics of different disability groups, user expectations, product and environmental use methods are described. Through practical examples, they can learn about special user needs generated by additional life situations in addition to disabilities (e.g., illness, injuries, pregnancy, etc.). Using the methods and technologies learned during the course, students should develop a technical proposal for a given user group that solves the identified problems and shortcomings and improves the quality of life of the special needs group, serves the accessibility of everyday activities or situations.

Academic results

Knowledge

1. They have comprehensive knowledge of universal design, barrier-free design and design for special needs,
2. They get to know them by placing them in an ergonomic design approach.
3. They have comprehensive knowledge of the characteristics of each specific group of users (disabilities, transitional states, age characteristics) and their basic needs in relation to product use, information and environmental needs.
4. They are familiar with the relevant standards and recommendations for universal design and accessibil-ity.

Skills

1. They are able to connect with members of each special user group, involve them in ergonomic design processes.
2. They are able to identify special needs, recognize differences.
3. They are able to consider complex design solutions that can be used without hindrance for the widest possible range of users, taking into account the different special needs.

Attitude

1. They are characterized by sensitivity to human needs. They are characterized by a user-centric thinking and approach.
2. They are characterized by continuous learning skills, broad and thorough education, interdisciplinary in-terest.
3. They are characterized by a system-level thinking and approach.
4. They are characterized by a strong critical and self-critical sense.

Independence and responsibility

1. To solve various professional problems, they apply user-centric methods and techniques independently or on the basis of professional guidance.
2. They are open to independently monitor technical, technological, economic, legal and human develop-ments in his / her field.
3. In order to a– suggested literature to achieve the goal, they mobilize their theoretical and practical knowledge and skills in an autonomous way, if necessary in cooperation with other members of an in-terdisciplinary team.

Teaching methodology

Lectures

Materials supporting learning

- Szabó Gy. (szerk.): Tervezés speciális felhasználói körök számára. DSGI kiadó Budapest 2002

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

The assessment of the learning outcomes set out in point 2.2 is based on two mid-term exams.

Performance assessment methods

Detailed description of assessments performed during the semester: summative assessment of learning performance: complex, written way of assessment of knowledge and skill types of competence elements of the subject in the form of two mid-term exams.

Percentage of performance assessments, conducted during the study period, within the rating

- **1st mid-term exam**: 50%
- **2nd mid-term exam**: 50%
- **összesen**: 100%

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

Issuing grades

Excellent	> 90
Very good	80–89
Good	70-79
Satisfactory	60-69
Pass	40-59
Fail	< 40

Retake and late completion

Each mid-term exam has to reach 40%. The mid-term exams can be replenished by the supplementary exam held in the last study week and
the supplementary-supplementary exam held in the replacement period. In the event of a supplementary exam, only one of the two exams
can be replenished (however, in the case of fulfillment of neither of exams, one exam can be replenished in the supplementary exam, the other exam can be replenished in the supplementary-supplementary exam). The supplementary exam can also be written for correction,
if other-wise both exams are fulfilled. In case of correction, the later score shall be taken into account.

Coursework required for the completion of the subject

4 14

94

150

Approval and validity of subject requirements

Pre-2017, next review September 2021.

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

To achieve the learning outcomes specified in section, 2.2, the subject consists of the following thematic blocks. The syllabus of the specific course announced in each semester shall schedule these elements of topics according to the calendar and other circums

1 Előadások témái
2 Speciális felhasználói csoportok bemutatása.
3 A segítő technológiák osztályozási rendszerének bemutatása
4 Rehabilitációs módszerek bemutatása
5 Fejlesztőpedagógiai módszerek bemutatása
6 Releváns prototípusgyártási additív technológiák bemutatása
7 Gyakorlatok
8 A tematikához illeszkedő intézményi hospitálás
9 Kiscsoportos műhelymunkák

Additional lecturers

Pulay Márk Ágoston tanársegéd pulay.markt@gtk.bme.hu

Approval and validity of subject requirements

Beyond Part I and II of the Subject Datasheet, Part III is approved by the head of the Department of Ergonomics and Psychology indicated
in section 1.8 in consultation with the director(s) of the programme(s) concerned.