

Design of Assistive Products

2 units (selection)

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Target) It aims to learn how to realize and how to keep the quality of assistive products in the view point of international marketing and to acquire the ability of designing of products used at office, working place and home in which the concept of adapting the device to the human being is installed.

Outline) Assistive technology for daily living of persons with disabilities in the society. Human factors and R & D of assistive products and services. Adapting the environment to the people instead of the people adapting to the environment. Evaluation of appropriateness of assistive technology system for a person.

Style) Lecture

Keyword) *assistive product, Japanese Industrial Standard, International Standard, ISO, outcome measure*

Goal) Objective of this lecture is to understand the current state of assistive products in the world and international standard of them, and to learn designing of them. Moreover, it aimed to learn the method of outcome measure of assistive products and to be able to consider the total arrangement of products at working place and at home.

Schedule)

1. Introduction : assistive products as industrial products, ergonomic approach
2. Situation of assistive technology in the world : North America, Europe and Japan
3. Assistive products as industrial products : Japanese Standard, International Standard and Guidelines for all people including elderly and people with disabilities
4. Human factors (1) : Decrease of physical function according to aging
5. Human factors (2) : Decrease of sensory function according to aging
6. Japan Industrial Standards of Assistive Products : Wheelchair (1)
7. Japan Industrial Standards of Assistive Products : Wheelchair (1)
8. Japan Industrial Standards of Assistive Products : Artificial Legs
9. Japan Industrial Standards of Assistive Products : Artificial Arms
10. Japan Industrial Standards of Assistive Products : Beds
11. Japan Industrial Standards of Assistive Products : Hoists

12. Personal environment control system : Smart House, ECS and Home bus system

13. Fitting of assistive products in daily living (1) : Methods of outcome measure

14. Fitting of assistive products in daily living (2) : Methods of outcome measure

15. Guideline for work place : Legislation and remodeling of work place

Evaluation Criteria) Results will be evaluated through the lecture and reports submitted after each lesson.

Reference) To be introduced in th class

Contents) <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216807>

Contact)

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