



UNIVERSITAT DE VIC
UNIVERSITAT CENTRAL
DE CATALUNYA



Centre: Barcelona

Course: **Universal Design. Creating a world tailored to people's diversity**

Programme: Business, Design & Innovation

Term offered: 2 (Spring)

ECTS Credits: 6

Duration: 45 hours (3 hours/week)

Language of instruction: English

Instructor: Francesc Aragall

Course description:

The concept of Universal Design (UD) has evolved dramatically over recent years. Driven by the synonymous concept of Design for All used mainly in Europe, Universal Design is evolving from designing considering the needs of the elderly and disabled population towards designing for human diversity considering all aspects (cultural, gender, sexual orientation, ability, age, dimension, allergies, etc.).

Another key transformation can be found in UD methods: professionals have evolved from "designing for the elderly and disabled people" to "designing with citizens". UD cannot be considered as an isolated issue. UD is a key aspect of social sustainability and should be balanced with other crucial aspects (economics, ecology and efficiency, among others) when designing environments, products and services.

The course will describe the best UD examples and practices around the world in the fields of urban planning, transport, consumer products, tourism and services.

During the course several design and assessment methods will be described by means of practical examples.

Prerequisites

None

Attendance Policy:

Attendance is mandatory for all classes, including field studies. Any exams, tests, presentations, or other work missed due to student absences can only be rescheduled in cases of documented medical or family emergencies. If a student misses more than three classes in any course half a letter grade will be deducted from the final grade for every additional absence. Seven absences in any course will result in a failing grade.

Learning outcomes

By the end of the course the students will be able to:

- Understand all critical aspects of human diversity and challenges related to the senses, age, body shape, cognitive capacities and culture.
- Understand the critical aspects for success in designing and delivering services considering all aspects of human diversity.
- Identify the key factors to balance social, economic and ecological aspects in UD implementation. Learn about the Seven Interdependent Success Factors (7ISF) for designing a project and assessing services through analysis of authentic cases. Learn about cases of UD from around the world, delivered by the public sector, the business sector and social organisations.
- Design or redesign a product or service from a UD perspective.

Method of presentation

- Lectures and discussions: The lectures will provide a description of different services, sociodemographic aspects and analysis methods, supported by bibliography and images. During the lectures open discussion will be encouraged.
- Class participation: In groups students will analyse a variety of current projects in Barcelona using tools of analysis provided.
- Field studies: Visits to enterprises and public spaces related to UD in Barcelona.
- Oral presentations: Students are expected to present the results of their analysis or proposals with visual support.

Field study

- Barcelona's public space, transport services and enterprises, the Design for All Foundation, Barcelona Design Hub, Zicla (a design company that produces urban furniture from recycled materials) and Access Safety.

Required work and assessment methods

- Attendance and participation during sessions (40%)
- Analysis of a project using 7ISF (15%)
- Analysis of human diversity using HUMBLES tables (15%) Oral presentation of an analysis or proposal (30%)

Contents

- Week 1: General overview of the course. Introduction of participants and their interests. Introduction to the course.

Week 2: Human diversity: mobility, dimensions and senses.

Physiodemographic description of capacities and limitations in each field.
- Week 3: Human diversity. Cognition, age, gender and cultural aspects.

Description of capacity limitations and diversity in each field.
- Week 4: Public space and diversity.

Public transport systems, pedestrian mobility, new trends and services in mobility.
- Week 5: Field study. Barcelona's urban space and public transport system.

Field study. Human diversity in the city. Analysis of diversity by means of the HUMBLES method.
- Week 6: Presentation and discussion of results.

How Barcelona adapts to human diversity in comparison with students' cities.
- Week 7: UD as a social and economic success factor.

Tourism. Evolution and present situation. Why UD is a key factor in the tourism business.
- Week 8: UD in ICT services.

The 7 Interdependent Success Factors (7ISF). Use for project and service analysis and design from a UD perspective. Possibilities for improvement of services in the city through ICT and mobile apps.
- Week 9: Discussion of the 7ISF and students' selection of a service to analyse or a proposal to develop.

Field study: Barcelona Design Hub (including the design museum).

- Week 10: Field study. Zicla and Access Safety enterprises.
- Week 11: Advice for developing the students' chosen projects.
- Week 12: Advice for developing the students' chosen projects.

Field Study. Tourist attractions in Barcelona and how they include UD.

- Week 13: Discussion of balance between human diversity, quality of life, sustainability and economic development in each project.

Follow up on the use of the 7ISF.

- Week 14: Oral presentation of the exercise and discussion.

Oral presentation of the project and discussion.

- Week 15: Oral presentation of the exercise and discussion.

Discussion and conclusions about UD and its transferability to students' careers.

Required reading

Aragall, F., & Montana, J. 2012. *Universal Design: The HUMBLE Method for User-Centred Business*. Farnham, UK: Ashgate.

Aragall, F., Neumann, P., Sagramola, S.,. 2009. *ECA for Administrations 2008*. EuCAN, Luxembourg: EuCAN (www.eca.lu)

Recommended reading

Aragall, F., Neumann, P., Sagramola, S.,. 2009. *Design for All: from theory to practice* EuCAN, Luxembourg: EuCAN (www.eca.lu)