

ID	3673
Curricular Unit	Design of Information Systems
Regent	Francisco dos Santos Rebelo
Learning Outcomes	<ul style="list-style-type: none"> - Understand the terminology and evolution of computing resources (hardware and software) that support information systems; - Mastering the development of the information architecture of a system using the card sorting; - Mastering the W3C standard for evaluation and development of information systems; - Mastering the use of heuristics to evaluate and develop information systems.
Syllabus	<ul style="list-style-type: none"> - Introduction (terminology and introduction to HTML); - Human-Computer Interaction (Research in Information Systems - mental model usage, memory, learning and training, use of metaphors, intelligent interfaces); - Accessibility of Information Systems (a W3C standard; evaluating accessibility using the W3C standard); - Architecture of information systems (Methodological aspects and practical exercises with the card sorting method); - Heuristics for Evaluating of Information Systems (Advantages and disadvantages; integration in organizations, foundations of ISO 14915-1 standard; examples of heuristics: consistency, easy error recovery, efficiency and feedback; - Prospective usability evaluation techniques; - Evaluation and development of an information system using usability heuristics; - Case Studies (Examples of information systems developed at the Laboratory of Ergonomics of the FMH - Ulisboa - Ergoshow; Ergos Office).
Evaluation	<p>Oral presentations supported by PowerPoint, about the different topics of the program. The classes are supported with practical examples of work carried out by the Laboratory of Ergonomics with Portuguese organizations (case of Ergoshow and Ergos Offices). The mastering of accessibility (W3C), information architecture and usability heuristics is developed through practical classes where the student consolidates the syllabus. It is a discipline with a strong practical component, aspect that is reflected in the evaluation model.</p> <p>Continuous assessment: 50% practical component (worksheets) and final work + 50% theoretical component (final exam) with minimum of 9.5 in each component.</p> <p>Final evaluation: exam (50%) and defense of a practical work (50%).</p>

Bibliography

- Deborah, J. (1992) Principles and guidelines in software interface design. Prentice Hall, New Jersey.
- Helander, M. (1992) Handbook of human computer interaction. North-Holland.
- Mayhew, Deborah J. (1992) Principles and guidelines in software user interface design. Englewood Cliffs, Prentice Hall PTR.
- Norman, Donald (1999) Invisible computer: why good products can fail, the personal computer is so complex and information appliances are the solution. MIT Press, Cambridge.