

# Course : Ergonomics for mobile applications and sites, improving the user experience

Practical course - 2d - 14h00 - Ref. EGO

Price : 1540 CHF E.T.

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Today, with the development of tablets and smartphones, application ergonomics is a key issue for UX designers. After reviewing the basics of HMI ergonomics and the specificities of mobile interfaces, you'll analyze several mobile interfaces to carry out an audit. Finally, you'll apply the UX design approach to study users and their needs, and propose relevant, easy-to-use mobile interface mock-ups.

## Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Acquire the fundamental concepts of ergonomics
- ✓ How to develop an ergonomic mobile interface
- ✓ Understanding user-centered design
- ✓ Discover heuristic analysis of mobile HMIs

## Intended audience

Anyone in the IT field directly or indirectly concerned with the quality of human-machine interfaces.

## Prerequisites

Basic knowledge of mobile operating systems and user interfaces.

## Course schedule

### PARTICIPANTS

Anyone in the IT field directly or indirectly concerned with the quality of human-machine interfaces.

### PREREQUISITES

Basic knowledge of mobile operating systems and user interfaces.

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

## 1 Introduction and definition: what is ergonomics?

- Definition of ergonomics. Why do we need ergonomists?
- The role and benefits of ergonomics.
- ISO 9241-210 usability standards: ergonomics at the crossroads of several disciplines.
- Introduce ergonomics into the HMI design cycle.
- Return on investment in ergonomics.
- Waterfall, V-cycle, Agile: how to take ergonomics into account?
- Types of intervention: design or correction.
- Ergonomics and accessibility: constraint or complement?

## 2 Designing an ergonomic mobile interface

- Specific features of mobile HMI: display, interaction, new audiences and uses.
- Common ergonomic problems.
- Optimize mobile display.
- Mobile sites, dedicated Apps or Responsive Design?
- Touch gestures, specific to each operating system.
- Scoring: FITTS' law.
- Navigation in a mobile interface.

### Example

Familiarization with ergonomics. Audit of different HMIs with ergonomics problems. Participants observe and identify areas for improvement.

## 3 Study users, their tasks and the context

- Human cognitive functioning.
- Impact on HMI: colors, images, menus, icons and rules for mobile devices.
- Target population: establish Personas.
- Experience Map and context of use.
- Needs analysis and task modeling.

### Hands-on work

Creation of Personas, Experience Map and task trees.

## 4 Designing a mobile interface

- What is layout?
- Sketching, low-fidelity modeling.
- Medium-fidelity modeling.
- High-fidelity modeling.
- Tools available on the market.
- The principles of material design[1].

### Hands-on work

Interface design using low-fidelity visual tools (Balsamiq, Wireframe Sketcher).

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at [psh-accueil@orsys.fr](mailto:psh-accueil@orsys.fr) to review your request and its feasibility.

## 5 Heuristic analysis of mobile HMIs

- The heuristic analysis method: strengths, weaknesses, ROI.
- Heuristic criteria "universal".
- Heuristic analysis methodology.
- A mobile HMI analysis grid.
- Study of analysis and audit grids.

### Hands-on work

Mobile interface audit.

## Options

### Certification : 190€ HT

La certification DiGiTT® est en option lors de l'inscription à cette formation et s'articule en 3 étapes : le passage d'un Diag® avant la formation, l'accès à une digithèque permettant l'apprentissage des concepts et notions pour chaque compétence digitale, puis le passage de l'examen de certification. Celui-ci se compose d'un test de 90 min disponible en anglais et en français. Le résultat atteste de votre niveau de compétences sur 1000 points (débutant, intermédiaire, avancé, expert). Le seul suivi de cette formation ne constitue pas un élément suffisant pour garantir un score maximum à l'examen. La planification de ce dernier et son passage s'effectuent en ligne dans les 4 semaines qui suivent le début de votre session.

## Dates and locations

### REMOTE CLASS

2026: 23 Mar., 22 June, 2 Nov.