



# **Interactive Multimedia Applications Introduction**

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## Professor

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  - room: **C.1.5(5) or F.0.13**
  - Building: C or F
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## Curricular Unit

- **Hours/week**
    - 4,5 hours = 1,5 theoretical-practical + 3 laboratory
  - **Credits**
    - 6 ECTS
  - **Requirements**
    - Web Programming Technologies
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## Learning Outcomes

- **User Experience (UX) design model:** analysis; prototyping (design & implementation) and evaluation
  - **Sketching, wireframing and prototyping** tools and techniques
  - **Hybrid framework** for cross-platform mobile applications design
  - **Mobile Applications development** (including evaluation) for devices with Android OS
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## Syllabus (I)

- **UX design model for Mobile**
    - Concepts (UX, Interaction Design, Interface Design)
    - Iterative Model and Goals
    - User Research
    - User Interviews and Surveys
    - User Personas
    - User Behaviour
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## Syllabus (II)

### ■ Prototyping

- Sketching and Sketching tools
  - Wireframing and Mockups
  - Prototyping techniques and Tools
  - Visual Design Principles
  - User Interface Design
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## Syllabus (III)

### ■ Hybrid Development of Cross-Platform Mobile Applications

- Cross-Platform Frameworks Analysis
  - Hybrid Mobile Apps *versus* Native Apps
  - Cross-Platform Ionic Framework
  - ES6, AngularJS and TypeScript
  - Apache Cordova
  - Ionic Components
  - Syntactically Awesome Style Sheets (SASS)
  - Georeferenced Mobile Applications and Notifications
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## Bibliography - UX Design



- UX Design for Mobile: Design apps deliver impressive mobile experiences

Pablo Perea, Pau Giner  
Packt Publishing  
ISBN: 978-1787283428



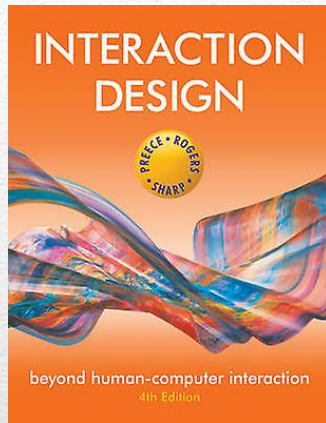
- Hands-On Ux Design for Developers: Design, prototype, and implement compelling user experiences from scratch

Elvis Canziba  
Packt Publishing  
ISBN: 978-1788626699

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## Bibliography - Interaction Design



- Interaction Design: Beyond Human computer Interaction 4Edition

Jenny Preece, Helen Sharp and Yvonne Rogers  
John Wiley & Sond Ltd  
ISBN: 978-11190207520



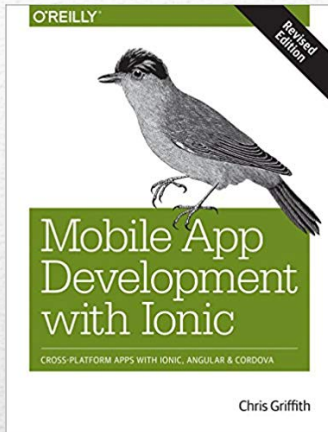
- There's Not an App for That: Mobile User Experience Design for Life

Simon Robinson, Gary Marsden and Matt Jones  
Morgan Kaufmann  
ISBN: 978-0124166912

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## Bibliography - Ionic



- Mobile App Development with Ionic: Revised Edition: Cross-Platform Apps with Ionic

Chris Griffith

O'Reilly

ISBN: 978-1491998120

- [Ionic Books](#)
  - <https://ionicframework.com/>
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## Assessment

### ■ Classification

- 35% Lab works (tutorials in groups of 2 students)
  - 65% Final project (individual) + Report + Discussion (oral evaluation)
  - **Minimal classification to be approved: 9.5**
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## Final Project

- **Design, Implementation and Evaluation of an Android Application with Ionic framework**
    - Students are challenged to create and implement new mobile applications
    - Students must make a proposal that is evaluated by the teacher
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