

Software Architectures

Master in Informatics Engineering

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# Master in Informatics Engineering

... aims to train professionals ...

- ... in advanced topics in the field of computer engineering ...
- ... [with] personalized specialization in diverse areas ...
- ... [balancing] theoretical foundations with their application to real problems ...

#### **Goals of Curricular Unit**

- 1. Know relevant software architectures
- 2. Identify impact factors;
- 3. Knowing how and when to choose the most suitable software architecture for each case
- 4. Design architectures for specific cases

## Content organization

(subject to modification)

- 1. Module 1 Software architecture Intro (3 hours)
- 2. Module 2 Software development principles for Architecture Design (6 hours)
- 3. Module 3 Designing Software architectures (18 hours)
- 4. Module 4 Software architecture Patterns (9 hours)
- 5. Spare time: practical assignments review and presentation (6 hours)

## Online Support documentation

Preference for all digital documentation to which they have access, as they are UA students!

- O'Reilly (<a href="https://www.ua.pt/pt/sbidm/oreilly">https://www.ua.pt/pt/sbidm/oreilly</a>)
  - o Login with your UU at <a href="https://go.oreilly.com/universidade-de-aveiro">https://go.oreilly.com/universidade-de-aveiro</a>
- B-on (<u>https://www.b-on.pt/</u>)
  - may require vpn or on campus access
- Also...
  - https://github.com/herrera-ignacio/architect-handbook/tree/master
  - https://github.com/mehdihadeli/awesome-software-architecture/blob/main/docs/software-architecture.md

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#### **Evaluation**

- Final Exam: 30%
- Intermediate assignments:
  - o Assignment 1: 10%
    - Data privacy exercise web app (launched in week #2, due in week #3)
    - Individual
  - Assignment 2: 10%
    - TBD
- Final group assignment: 50%
  - Practical assignment to be presented in the last class day of course

#### Teacher's office hours

- Undefined
- Arrange by email => <u>claudio@ua.pt</u>
- Use elearning forum

## Groups

https://docs.google.com/spreadsheets/d/19ME5MBCrpHI0GMmnfPky41ZrWuNDDJ9UzLSJAfXoxA8/edit?usp=sharing