# TQS 2023/24 - Weekly Plan

| 45426 - TESTE E QUALIDADE DE SOFTWARE - 2º Semestre - 2023/2024 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dia** | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| Segunda | | | | | | | | | | | | | | |
| Terça | | | | | | | | | TP1 (*) (ANF, IV) | | | | | |
| Quarta | | | | | | | | | | | | | | |
| Quinta | | | P2 (*) (04.2.17) | | | | | | | P1 (*) (04.2.11) | | P3 (*) (04.2.11) | | |
| Sexta | | | | | P4 (*) (04.2.11) | | | | | | | | | |
| Sábado | | | | | | | | | | | | | | |

| TP1 (Tue) | | P2, P1, P3 (Thu) | | P4 (Fri) | |
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| 13-02 | | 15-02 | Lab 1: Unit testing (JUnit) Write unit test using JUnit framework. Analyse coverage. | 16-02 | Lab 1 |
| 20-02 | (TP1) Introduction to SQA. The tests pyramid and the role of unit testing. Synthesizing test objects for collaborators | 22-02 | Lab 2: Mocking dependencies Write tests using JUnit and Mockito. Apply @Mock and @Spy. | 23-02 | Lab 2 |
| 27-02 | (TP2) Synthesizing test objects for collaborators. (TP3) Testing multi-layered applications (Spring Boot approach). | 29-02 | Lab 3: Spring Boot applications testing Spring Boot instrumentation for multi-layer applications testing. Testing API endpoints. | 01-03 | Lab 3 |
| 05-03 | (TP4) Acceptance testing. Web automation. The Selenium framework. | 07-03 | Lab 4: Web testing automation Using WebDriver and Selenium. Page Objects pattern. | 08-03 | Lab 4 |
| 12-03 | (TP5) Behavior-driven development. The Cucumber framework. | 14-03 | Lab 5: Behavior-driven Development (BDD) Writing tests with features using the Cucumber framework. | 15-03 | Lab 5 |
| 19-03 | (TP6) Static code analysis. Code quality metrics. | 21-03 | Lab 6: Code inspection with static code analysis tools. | 22-03 | Lab 6 |
| 26-03 | Easter break.] | 28-03 | [Easter break.] | 29-03 | [Easter break.] |
| 02-04 | (TP7) Additional tools for integration testing: test containers, database migrations. | 04-04 | Lab 7: Complementary test tools (Test Containers, Flyway, REST Assured) | 05-04 | Lab 7 |

| TP1 (Tue) | | P2, P1, P3 (Thu) | | P4 (Fri) | |
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| 09-04 | (TP7) CI cycle. | 11-04 | HW assignment review. | 12-04 | HW assignment review. |
| 16-04 | (TP8) Project kick-off. | 18-04 | Project Iter. 1 | 19-04 | Project Iter. 1 |
| 23-04 | (TP9) Software Quality models. SQA and the Software Development Lifecycle. | 25-04 | [Public holiday.] Project Iter. 2 – no classes. | 26-04 | Project Iter. 2 |
| 30-04 | [Academic week.] | 02-05 | [Academic week.] | 03-05 | [Academic week.] |
| 07-05 | (TP10) Testing for non-functional qualities. Performance testing. | 09-05 | Project Iter. 3 | 10-05 | Project Iter. 3 |
| 14-05 | ~~(TP11). Code reviews.~~ | 16-05 | Project Iter. 4 | 17-05 | Project Iter. 4 |
| 21-05 | (TP11) Code reviews. | 23-05 | Project Iter. 5 | 24-05 | Project Iter. 5 |
| 28-05 | (TP12) Quality and AI (invited talk) | 30-05 | [Public holiday.] | 31-05 | Project presentation. |
| 04-06 | Review questions for the exam. | | Project presentation: scheduled for 5/6 (morning period). | | |
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- Semester calendar