Summary
This course teaches the basics of developing real-world software, i.e., software that is large and complex, is developed by a team, evolves and needs to be maintained, and can cause serious harm if it fails. Students develop an Android app and do a lot of programming.

Content
• Development processes, in particular agile methods
• Tools (source control, project management, issue trackers, debuggers, etc.)
• Android

Learning Prerequisites
Required courses
• CS-305 Software Engineering (can be taken in parallel)

Important concepts to start the course
First and foremost, students taking Software Engineering must be proficient Java programmers. Without a good prior knowledge of Java, it is very difficult to keep up with the pace of the class. Familiarity with Android development is a plus but not required.

Learning Outcomes
By the end of the course, the student must be able to:
• Design mobile apps
• Coordinate a team of developers

Transversal skills
• Plan and carry out activities in a way which makes optimal use of available time and other resources.
• Assess progress against the plan, and adapt the plan as appropriate.
• Assess one’s own level of skill acquisition, and plan their on-going learning goals.
• Manage priorities.
• Take feedback (critique) and respond in an appropriate manner.

**Teaching methods**
Team-based project

**Expected student activities**
Work with team members to complete a substantial project

**Assessment methods**
Grade determined based on both team and individual performance in the project.

**Supervision**

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<th>Office hours</th>
<th>Yes</th>
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<td>Assistants</td>
<td>Yes</td>
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<td>Forum</td>
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**Resources**

- Virtual desktop infrastructure (VDI)
  No

**Websites**

- [http://sweng.epfl.ch/](http://sweng.epfl.ch/)