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
Office hours  Yes
Assistants  Yes
Forum  Yes

Resources
Virtual desktop infrastructure (VDI)
No

Websites
• http://sweng.epfl.ch/