

Course analysis for ID2216 Developing Mobile Applications

Course analysis carried out by (name, e-mail): Anders Västberg, vastberg@kth.se

COURSE DESIGN

The course consists of lectures, seminars, and laboratory exercises under supervision. The lectures present an overview of methods, theory, and best practices. Though the lectures give context and introduce mobile application development, many details of the course must be learned from other sources: course literature, websites, videos, other books, and articles. The laboratory exercises consist of design problems and programming of mobile applications. Seminars consist of presenting and discussing design decisions in groups. Attendance at seminars is mandatory. The course consists of four parts: introduction, mobile application design, mobile application programming, mobile eco-system and internet-of-things. The examination consists of a project divided into five parts with reports and oral presentations and a written home exam.

Changes from the last course round:

- Revise and update the content of lectures
- Revise the project and focus it on central activities
- Revise the course literature
- Labs about wearables were cancelled this year

THE STUDENTS' WORKLOAD

The LEQ indicates a workload seems to be reasonable. Although, Groups with fewer than four group members, complained about too large workload. The size of the project task was adjusted for these groups.

THE STUDENTS' RESULTS

HT21: 20 of 28 registered students passed the course or 71%

VT22: 39 of 41 registered students passed the course, or 95%.

OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

The course for HT21 was given mostly in class-rooms with some Zoom-activities, while the VT21 version was given in Hybrid form. Most students quickly preferred the online version and at the end of the course most activities were in Zoom format. As all of the students prefer to not have the camera on, there is very little interaction during these activities. Also it limits the interaction between the students during group exercises and labs. Another disadvantage is that all of the questions that normally show up during breaks did not happen.

The zoom-lectures can probably be replaced by pre-recorded videos. My impression is that the project groups did work better. The groups could choose if they interacted via Zoom or meet at KTH, using Github and other tools, such as Figma, also made cooperation easy.

ANALYSIS OF THE LEARNING ENVIRONMENT

The course is intended to give an overview of mobile applications development, and therefore the scope needs to be relatively wide. As it is a master-level course, there is a lot of content and few learning activities. The course accepts students both from master and bachelor programs, and therefore the expectation of the learning environment might be different for different student groups. To handle this, one might be considering creating a bachelor-level course with more focus on the technology and lectures and labs.

The content of the course still needs further modernization, and would be good to find a replacement for the previous old course book, which gave an overview of the whole course content. Not we need to cover several books to cover the whole area.

The course seems to have some overlap with DH2642 which needs to be addressed. That course seems to cover web app and frameworks in some detail which means that ID2216 needs to focus on native code. Probably also included iOS and Swift besides Android programming, including the Kotlin programming language.

The home exam seems to work in most cases, but is very time consuming to grade. Other alternatives should be considered.

PRIORITY COURSE DEVELOPMENT

1. Continue the modernization of the course: update the course literature, update labs, include iOS, Swift and introduce Kotlin as Android language, include labs on connectivity.
2. Review the exam form
3. Investigate the relation to DH2642