



## COURSE SYLLABUS

# Android Development, 9 credits

*Android-utveckling, 9 högskolepoäng*

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Course Code:	TAUN15	Education Cycle:	First-cycle level
Confirmed by:	Dean Feb 9, 2015	Disciplinary domain:	Technology (95%) and social sciences (5%)
Valid From:	Aug 1, 2015	Subject group:	DT1
Version:	1	Specialised in:	G2F
Reg number:	JTH 2015/605-313	Main field of study:	Computer Engineering

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### Intended Learning Outcomes (ILO)

On completion of the course the student should:

#### *Knowledge and understanding*

- Display an understanding of Android architecture?
- Display an understanding of the challenges and possibilities associated with Open Source software development?

#### *Skills and abilities*

- Display the ability to use the programming language Java?
- Display the ability to use the Android SDK and toolchain
- Display the ability to make use of sensor systems and GPS-functionality via Android?
- Display the ability to make use of the most common Android APIs?
- Display the ability to, when writing a business plan, correctly calculate costs, prices, investments, and realistic profitability estimates for services developed using Android

#### *Judgement and approach*

- Display insight into the opportunities and ethical risks associated with companies gathering and utilising personal user data, such as health data, positioning data, contact details, etc. from mobile devices.

### Contents

The purpose of the course is to give an introduction to and experience of Android programming, from start to finished and published app.

The course includes the following topics:

- Android architecture?
- Java?

- The Android SDK
- Dealing with multiple hardware configurations
- GUI development for Android?
- Sensors (gyroscope, GPS, camera)?
- Network communication in Android
- Other key APIs?
- Publishing on the Android Market
- Ethical data management
- Calculating costs, prices, investments, and profitability

### Type of instruction

The course will consist of lectures, lab work and project work.

The teaching is conducted in English.

### Prerequisites

General entry requirements and completed courses 60 credits in first cycle including completed courses Operating System Theory 6 credits, Data Structures and Algorithms 9 credits, Network Programming 6 credits, and GUI Programming 6 credits (or the equivalent) (or the equivalent).

### Examination and grades

The course is graded 5,4,3 or Fail.

Registration of examination:

Name of the Test	Value	Grading
Project <sup>1</sup>	7 credits	5/4/3/U
Assignment 1	1 credit	U/G
Assignment 2	1 credit	U/G

<sup>1</sup> Determines the final grade of the course, which is issued only when all course units have been passed.

### Course literature