



## COURSE SYLLABUS

# iOS Development, 7.5 credits

*iOS-utveckling, 7,5 högskolepoäng*

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<b>Course Code:</b> TISK18	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Dean Apr 6, 2018	<b>Disciplinary domain:</b> Technology
<b>Valid From:</b> Aug 1, 2018	<b>Subject group:</b> DT1
<b>Version:</b> 1	<b>Specialised in:</b> GIF
	<b>Main field of study:</b> Computer Engineering

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- display an understanding for how iOS software is packaged and distributed to users

Skills and abilities

- display an ability to program using the Swift language and the XCode development environment
- display an ability to apply established design patterns for iOS development
- display an ability to use GPS and other sensor systems through iOS APIs
- display an ability to use iOS APIs to synchronise documents and data between mobile devices
- display an ability to design and implement user interfaces for different types of iOS-based devices

Judgement and approach

- display an ability to evaluate iOS applications' design and implementation, taking into consideration both technical and usability factors

### Contents

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

The course includes the following topics:

- XCode and Swift
- Memory management
- Design patterns in the iOS APIs
- GUI development with iOS
- Software quality
- Testing and debugging
- Sensor usage

- Network communication in iOS
- Other key APIs
- Publishing on the App Store

### **Type of instruction**

Tuition will consist of lectures, lab work and project work.

The teaching is conducted in English.

### **Prerequisites**

General entry requirements and completed courses in Objectoriented Software Design, 7,5 credits, Linear Algebra 6, credits and Web Development Fundamentals, 7,5 credits (or the equivalent).

### **Examination and grades**

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

The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Project Work <sup>1</sup>	5 credits	5/4/3/U
Laboratory Work	2.5 credits	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**

Literature

The literature list for the course will be provided one month before the course starts.

Title: iOS II Programming Fundamentals with Swift

Author: Matt Neuburg

Publisher: O'Reilly Media, Inc

ISBN: 9781491999318