



Faculty of Economic Sciences, Communication and IT  
Information Systems

## Syllabus

### Course Approval

The syllabus was approved by the Faculty Board of Economic Sciences, Communication and IT on 13 February 2012, and is valid from the Autumn semester of 2012 at Karlstad University.

**Course Code:** ISGC12

**App development for Mobile e-services, 7.5 ECTS Credits**

**(Utveckling av appar för mobila e-tjänster, 7.5 Swedish credit points)**

**Degree Level:** Bachelor

**Progressive Specialisation:** G2F (First cycle, has at least 60 credits in first-cycle course/s as entry requirements)

### Language of Instruction

English, if non-Swedish speaking students or teachers are involved, otherwise Swedish

### Prerequisites

Information Systems 60 ECTS cr, including ISGA04 Basic Programming 7.5 ECTS cr, ISGB04 Programme Development 7.5 ECTS cr and ISGB03 Object-Oriented Modeling 7.5 ECTS cr, or equivalent

### Major Field of Study

#### Learning Outcomes

Upon completion of the course, students should be able to:

- give an account of how a necessary development environment (IDE, emulation tools, test tools and techniques for transmitting to mobile units) can be obtained and used,
- identify, analyse, solve and document common design problem in the development of apps for mobile e-service development,
- apply a development method specifically designed for e-service development for a mobile platform, and
- demonstrate basic understanding of the form of licence used by Android and of the open source code and its consequences for the licencing of apps for mobile platforms.

#### Content and Form of Instruction

The course addresses the specific problems associated with the development of software for mobile platforms.

The following tools for creating robust Android applications are treated:

- programming language
- Application Programming Interface (API)
- Integrated Development Environment (IDE)
- emulation environment
- test environment.

Techniques for improving the possibility of organising and maintaining software are also treated.

The course is based on practical exercises requiring students to clarify, analyse and handle different design

problems. Instruction is in the form of study guides, multimedia instructions, lectures, laboratory supervision and seminars.

#### Reading List

See separate document.

#### Examination

Assessment is based on laboratory work reported in writing. Some laboratory tasks are also to be reported and discussed individually with the teacher.

#### Grades

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

#### Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course assessment is based on student views and experiences as reported in written course evaluations and/or group discussions. Students will be informed of the result of the evaluation and of the measures to be taken.

#### Course Certificate

A course certificate will be provided upon request.

#### Additional Information

Students who enrolled before 1 July 2007 will complete their studies in accordance with the requirements of the earlier admission. Upon completion students may request degree and course certificates to be issued under the current ordinance if they meet its requirements.

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.

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