



Curriculum part 3 - 2015

Elective programme elements

Bachelor of Web Development

Version 1.0
Revised August 2015

Table of contents part 3 – Elective elements

1.	Elective programme elements.....	2
2.	Frameworks and Source Code Management (10 ECTS)	3
3.	Mobile Application Development (10 ECTS)	4
4.	Philosophy of Science (5 ECTS)..... Fejl! Bogmærke er ikke defineret.	
5.	Mobile Development - Android (10 ECTS).....	5

1. Elective programme elements

In the 2nd semester of the programme, there are a number of elective programme elements that must be combined to reach a total of 20 ECTS.

The purpose of the elective elements is to offer the students an opportunity for an individual profile on their programme through academic immersion within the programme's subject elements. The electives are organised by the individual institution that offers the programme.

In order to continuously offer current electives, the electives' catalogue is updated continuously.

Teaching in all elective courses is in English.

2. Frameworks and Source Code Management (10 ECTS)

Purpose

The purpose of this module is to make the student familiar with web development frameworks and source code management of the related source code. It is the purpose to strengthen the student's ability to set up criteria for and conduct comparative analysis of selected frameworks

Objectives

Knowledge

The objective is that the student must:

- know about the distinction between frameworks and integrated development environments
- know the distinction between "Full-Stack" and "Non Full-Stack" frameworks
- know the distinction between centralized and distributed source code version management systems
- know about evaluation criteria for selecting the most suitable framework for a given type of project.

Skills

The objective is that the student must:

- be able to apply relevant standard design patterns to the web development process
- be able to design, create web applications with the frameworks selected for the module
- be able to manage the source code of web projects with a source code version management system
- be able to set up criteria for selecting the most suitable framework for a given type of project
- be able to conduct comparative analysis based upon the criteria set up for selection of framework
- be able to deploy the developed web applications to the World Wide Web.

Competencies

The objective is that the student must achieve competencies to:

- evaluate and select the most suitable frameworks for web development for a given type of project based on best practices, proof-of-concept development and relevant research.

3. Mobile Application Development (10 ECTS)

Purpose

The overall objective for the module is to enable the student to develop applications for mobile platforms up until the point of a fully developed application ready for distribution and to use and advise about various distribution channels as well as putting mobile applications into a commercial context.

Objectives

Knowledge

The objective is that the student will gain knowledge about:

- central distribution channels for mobile applications
- business models for distribution of mobile applications
- various application genres in development of mobile software
- various programming strategies for production of mobile applications
- the suitability of various technologies for commercial needs.

Skills

The objective is that the student has skills to:

- use a central development environment for developing and distributing mobile applications
- use server-based programming technology for exchanging data between mobile devices and between the mobile unit and server
- use tools for developing hybrid applications
- use central techniques for implementing monetization for commercial scaling of the application.

Competencies

The objective is that the student has competencies to:

- master a central object-oriented language for developing applications depending on the operating system
- evaluate the suitability of various technologies for various distribution techniques
- evaluate development aspects of the difference between web applications and applications depending on the operating system.

4. Mobile Development - Android (10 ECTS)

Purpose

The overall objective for the module is to enable the student to develop applications for mobile platforms up until the point of a fully developed application ready for distribution and to use and advise about various distribution channels as well as putting mobile applications into a commercial context.

Objectives

Knowledge

The objective is that the student will gain knowledge about:

- central distribution channels for mobile applications
- business models for distribution of mobile applications
- various application genres in development of mobile software
- various programming strategies for production of mobile applications
- the suitability of various technologies for commercial needs.

Skills

The objective is that the student has skills to:

- use a central development environment for developing and distributing mobile applications
- use server-based programming technology for exchanging data between mobile devices and between the mobile unit and server
- use tools for developing hybrid applications
- use central techniques for implementing monetization for commercial scaling of the application.

Competencies

The objective is that the student has competencies to:

- master a central object-oriented language for developing applications depending on the operating system
- evaluate the suitability of various technologies for various distribution techniques
- evaluate development aspects of the difference between web applications and applications depending on the operating system.