COURSE SYLLABUS

Server-side Web Development, 9 credits

Programmering för webben, 9 högskolepoäng

Course Code:	TPWK16	Education Cycle:	First-cycle level
Confirmed by:	Dean Feb 27, 2014	Disciplinary domain:	Technology (95%) and social sciences (5%)
Revised by:	Feb 9, 2015	Subject group:	DT1
Valid From:	Jan 1, 2016	Specialised in:	G1F
Version:	1	Main field of study:	Computer Engineering
Reg number:	JTH 2015/2282-313		

Intended Learning Outcomes (ILO)

On completion of the course, the student should:

Knowledge and understanding

- display an understanding for three tier web architectures
- display an understanding for common web application security issues
- display knowledge of performance optimisation in web applications
- display knowledge of economic sustainability and maintenance effects that differentiate web applications from traditional software systems, in particular concerning issues like standardisation, vendor/system lock-in, maintenance, and reusability

Skills and abilities

- display the ability to perform investment cost estimates concerning development, testing, and deployment environments for web applications
- display the ability to configure development, testing, and deployment environments for web applications
- display the ability to develop and deploy web applications

Judgement and approach

- display the ability to analyse and compare different technologies for web development (tools, frameworks, application servers, etc.)

Contents

The course provides the student with a thorough introduction to server side web development. It introduces the concepts and technologies used to develop dynamic web applications, including common frameworks and application servers for web development. It also covers security and performance optimisation.

The course includes the following topics:

- Web programming architectures, patterns, and tools
- Application servers and frameworks
- Current web technologies

- Security concerns in web applications
- Server-side AJAX
- Testing, debugging, and optimizing web applications
- Advantages and disadvantages of web applications
- Cost estimates for web development and hosting

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 Object-Oriented Software Development 12 credits, Relational Databases 6 credits, Web Development with JavaScript and DOM 6 credits, and Industrial Management, Entrepreneurship and Marketing 6 credits (or the equivalent).

Examination and grades

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

The final grade for the course is based upon a balanced set of assessments.

Registration of examination:

Name of the Test	Value	Grading
Examination	4.5 credits	5/4/3/U
Laboratory work and project work	4.5 credits	5/4/3/U

Course literature

The literature list for the course will be provided one month before the course starts.
Pro ASP.NET 3.5 in C# 2008: Includes Silverlight 2
Matthew MacDonald, Mario Szpuszta
Apress, 2009
Beginning ASP.NET 3.5 in C# 2008: From Novice to Professional, Second Edition
Matthew MacDonald
Apress, 2007
E-bok: http://proquestcombo.safaribooksonline.com/9781590598917