Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

1ME101 Webbdesign, 15 högskolepoäng
Web Design, 15 credits

Main field of study
Media Technology

Subject Group
Media Production

Level of classification
First Level

Progression
G1N

Date of Ratification
Approved by Organisational Committee 2009-09-08

The course syllabus is valid from spring semester 2010

Prerequisites
General entry requirements and Mathematics B and Physics A (Field-specific entry requirements 7).

Expected learning outcomes

Upon completion of the course the student should:

- have a good understanding of how the web works
- have acquired both theoretical and practical knowledge in web design
- know how to analyse web sites from a media technological perspective
- master methods and techniques for the development of web sites
- know how to create dynamic web pages with client-based languages
- know how to do basic editing of digital images for web publishing
- know how to write scripts that dynamically change the content and style of web pages
- know how to design usable, interactive web pages
- master methods for design of object-based, event-driven programs in client-based languages

Content

The course consists of the following parts:

Introduction to Internet, especially WWW

- technology, history and trends
- principles for communication between client and server
- protocol and security
- address structure on the web
- standards and W3C, World Wide Web Consortium

Design of web sites

- information architecture for web sites (field analysis and design methods, organisation and structure, navigation, and layout and style
- use of various digital media
- image editing for digital publishing
- adaption to facilitate searchability
- adaption to various distributions
- languages such as HTML/XHTML, CSS, XML and XSL and also applications such as RSS
- definition of XML with DTD and schema
- tools for web design

Programming

- definition of script languages, especially JavaScript
- survey of data types, variables, program statements, sequence, selection, iteration, functions, objects, and events
- object-based and event-driven programming
- fundamental programming of interactivity and dynamic effects on web pages
- principles for interactivity and the concept usability

Type of Instruction

Campus course are based manley on lectures, seminars, tutorials and practicals.
For distance course, the communication is conducted through a learning management system over the Internet. Practical work is conducted individually or in groups.
Attendance is mandatory for some sessions.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).
The examination consists of submission on written hand-in assignments. These must be submitted by the due date.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Required Reading and Additional Study Material

Required reading

DFM (present year) *Web-based material*, Linnaeus University. appr. 300 p.

Garrett, J. J. (2003) *The Elements of User Experience*, New Riders. 189 p. ISBN: 0-7357-1202-6

Lynch, P. & Horton, S. (2009) *Web Style Guide*, 3rd ed., Yale University Press, Available at www.webstyleguide.com [2009-06-01]. 320 p. ISBN: 0-300-13737-0

Ray, E.T. (2003) *Learning XML*, 2nd ed., O'Reilly, ISBN 0-596-00420-6

Thau, D. (2006) *The Book of Javascript: A Practical Guide to Interactive*v, Web Pages, No Starch Press. 400 p. ISBN: 1-59327-106-9

Wyke-Smith, C. (2006) *Stila med CSS*, Pagina (Swedish version). 268 p. ISBN: 91-636-0910-X
or
Wyke-Smith, C. (2007) *Stylin' with CSS: A Designer's Guide*, 2nd ed., New Riders (English version). 312 p. ISBN: 0-321-52556-6

Recommended Reference Litterature

Flannagan, D. (latest edition) *JavaScript - The Definitive Guide*, O'Reilly

Meyer, E. A. (latest edition) *Cascading Style Sheets - The Definitive Guide*, O'Reilly

Ray, E. T. (latest edition) *Learning XML*, O'Reilly

Recommended Supllementary Reading

Darlington, K. (2005) *Effective Website Development - Tools and Techniques*, Pearson Education

Jenkins, S. (2007) *Web Design: The L Line, the Express Line to Learning*, Hungry Minds Inc.

Morville, P. & Rosenfeld, L. (latest edition) *Information Architecture for the World Wide Web*, O'Reilly

Norman, D. A. (1998) *Design Of Everyday Things*, Mit Press Ltd

Wodtke, C. (2003) *Information Architecture: Blueprints for the Web*, New Riders Publishing