



MCS

CSE-477 Web
Engineering

CSE-477 Web Engineering

Course Introduction

September 21, 2010



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Introduction

- A new emerging discipline for the effective development of Web applications
- Web applications are becoming complex and user requirements are more diversified
- Technologies are changing at a very fast pace
- Web applications define a new domain of software applications and require new systematic practices of development



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Objectives

- To be able to analyze and design effective Web-based systems for the storage, retrieval and presentation of relevant information
- To be able to use some of the languages, tools and techniques available to manipulate data on the Web
- To learn techniques and methods to efficiently operate, maintain and evolve Web applications



Course Outline

CSE-477 Web Engineering

- Introduction to Web Engineering
- Web applications: Technologies I
- Requirements Engineering for Web applications
- Web applications: Technologies II
- Modelling Web applications
- Architectures for Web applications
- Java Server Pages (JSP)
- Web application development process
- Testing Web applications
- Misc topics
 - Operation and maintenance of Web applications
 - Usability Issues
 - Performance and security of Web applications
 - Web application design patterns
 - Search Engine Optimisation



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Learning outcomes

At the end of this course, you will be able to:

- Elicit, analyze and present important requirements for Web applications
- Transform the requirements to appropriate Web application design
- Understand various architectures of Web applications
- Develop Web applications using HTML, JSP, Javascript based on general Web application development principles
- Maintain, operate and evolve high quality and secure Web applications



Assessment and Marks distribution

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- Assessment will be based on:
 - Quizzes
 - Assignments
 - Mid-term and final examination
- Distribution of marks

Quizzes/assignments	10
Mid-term	30
Final exam	50
Total	100



Plagiarism & Academic Dishonesty I

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- Plagiarism is the theft or use of someone else's work without proper acknowledgment, presenting the material as if it were one's own.
- Plagiarism is a serious academic offence and the consequences are severe.
- In case of assignments and laboratory work, tasks assigned to individuals or groups must be carried out on their own.
- It is not acceptable to copy the results, discussions or reports from one another even if individuals/groups are working on the same task and may obtain same results
- **Plagiarism also includes the use of work of another student of the same class or the previous class even with proper referencing and acknowledgment for an assessed work**
- Any case of plagiarism will be treated seriously and is an act of academic dishonesty



Plagiarism & Academic Dishonesty II

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- In case of absence of a comprehensive departmental policy, following rules will be applied:
 - An individual/group may be assigned a straight-forward 0 mark if the submitted assessed work (lab work, assignment or quiz) is copied from another individual/group or from any other source (books, research papers, web sites).
 - An individual/group may be penalized if substantial amount of the submitted assessed work falls under plagiarism by deducting marks from the assessed work.



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Assignments I

- All assignments **must be** submitted by the due date/time
- In case of late submissions, marks will be deducted
- Extensions in the submission date may be granted under exceptional circumstances
- In case of essays/reports you **must** submit both soft copies (MS Office documents/OpenOffice documents) and printed copies. Main text of the documents should not be less than 12pt Times font or 10pt for modern fonts (Verdana, Ariel). Multiple pages must be bounded together in an appropriate manner (either stapled or bounded).



Books

- 1 “Web Engineering: The discipline of Systematic Development of Web Applications”, (Eds) Kappel, G. *et al.* (2006). John Wiley & Sons, Ltd.
- 2 “Beginning JSP, JSF, and Tomcat Web Development From Novice to Professional”, by Giulio Zambon with Michael Sekler (2009). Apress.

Web Resources

- 1 HTML, Javascript, CSS, and XML tutorial from <http://www.w3schools.com/>