SWE 444
Internet and Web Application Development

Dr. Abdallah Al-Sukairi and Dr. Sahalu Junaidu
{sukairi,sahl}@kfupm.edu.sa

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King Fahd University of Petroleum & Minerals
Information & Computer Science Department

Course Preliminaries

- **Course Objectives**

- **Students' Learning Outcomes**

- **Grading Policy**

- **Course Resources**

- **Course Outline**

Course Objectives

- **The Objectives of this course are:**

    1. To study the fundamentals of web engineering
    2. To study current technologies for developing web applications
    3. To apply current technologies in developing web-applications and web services

- **What are Web Applications?**

    ☐ Applications accessed with Web browsers over networks such as the Internet or intranet.

    ➢ Access typically requires human intervention

- **What are Web Services?**

    ☐ Software systems designed to support interoperable Machine to Machine interaction over a network.

    ➢ Access typically does not require human intervention

Course Learning Outcomes

- After completing this course, the student should be able to:

  - Perform analysis modeling and design modeling for web applications.

  - Identify candidate tools and technologies for developing web applications.

  - Develop user-interfaces for web applications

  - Describe and transform data using XML and its related technologies

  - Develop web applications and web services.

Evaluation Methods

1. **Quizzes**   15%

   - 3 x 5%

2. **Major Examinations**   30%

   - Major 1
   - Major 2

3. **Course Project**   30%

   - 5 assignments x 2.5%   - 12.5%
   - Phased project submissions: - 17.5%
     - Proposal   – 1%
     - Design document   – 2%
     - Progress report   – 1%
     - Paper   – 3.5%
     - Final deliverable   – 10%

4. **Final Examination**   25%

Course Resources

- ## No official textbook

- ## Slides developed through the semester

- ## Primary references for the slides

  - David R. Adams set of tutorials

    - http://msconline.maconstate.edu/tutorials/default.aspx

  - Other Internet links

Course Outline

1. Internet Basics for Web Applications

2. Web Engineering Fundamentals

3. Markup Languages and Styling

4. Client-Side Scripting (JavaScript)

5. Server-Side Programming

6. Data Description and Transformation Server-Side Programming

7. Web Services, Web Servers (Hosting)

8. Advances in Web Engineering