Information Systems Department

Course Syllabus

IS774- Advanced Web Services

Catalog Description:	This course will introduce the students to the concept of web services and their nature, characteristics and types. The students will gain knowledge of challenges associated with distributed information system and significance of different cross-platform solutions i.e. webservices that are based on web standards. The course will also provide students with practical experience in handling few available web services located at the web.

Credit Hours: **3 Credit hours:**   3 Lectures per week   0 Labs. per week   0 Recitation per week

Prerequisites: None

Course Learning Outcomes:

1. Manage software that communicates with web services and public or private web APIs
2. Understand the fundamental Web technologies that are the foundation for the development of web services
3. Identify the different web services protocols and communication standards
4. Design web services by selecting and using the appropriate technologies and tools
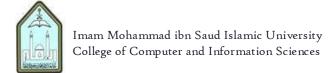5. Test and monitor web services

Major Topics:

- Introduction to domain
- Preliminaries (Fundamentals of Distributed Systems. Middleware. SOA)
- Web Technologies
- Web Services Protocols
- SOAP and WSDL. RESTful WS.
- WS Development
- Securing WS
- Advanced Topics

Text Books:

Service design patterns: fundamental design solutions for SOAP/WSDL and RESTful Web services - Daigneau, Robert, Addison-Wesley, cop. 2012. ISBN: 9780321544209

Web services: principles and technology - Papazoglou, M, Pearson, cop. 2008. ISBN: 978-0-321-15555-9
https://www.fib.upc.edu/en/studies/masters/master-innovation-and-research-informatics/curriculum/syllabus/WS-MIRI

Course Syllabus

IS774- Advanced Web Services

Grading:

◎ The grading scale for this course is:

95 - 100   A+   Passing
90 - 94   A   Passing
85 - 89   B+   Passing
80 - 84   B   Passing
75 - 79   C+   Passing
70 - 74   C   Passing
0   - 69   F   Failing

◎ Final grades will be determined based on the following components:
. 60% Semester Work
. 40% Final Exam

◎ Students may not do any additional work for extra credit nor resubmit any graded activity to raise a final grade.

◎ Late submissions will not be accepted for any graded activity for any reason.

◎ Students have one week to request the re-grading of any semester work.

Attendance Policy:

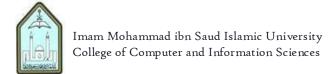Students should attend 80% of the overall course hours taught in the semester as per the University regulations.

If a student fails to achieve this portion, he/she shall not be allowed to appear in the final exam and shall be awarded "DN" grade and repeat the course.

Cheating and Plagiarism Policy:

The instructor will use several manual and automated means to detect cheating and/or plagiarism in any work submitted by students for this course.

When a student is suspected of cheating or plagiarism, the instructor raises the issue to the disciplinary committee.

Course Syllabus

IS774- Advanced Web Services

Communications: Registered students will be given access to a section of the Learning Management System (LMS) for this course. LMS will used as the primary mechanism to disseminate course information, including announcements, lecture slides, assignments, and grades.

Communication with the instructor on issues relating to the individual student should be conducted using CIS email, via telephone, or in person.