

Web Services

Instructor

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Class Meeting: Monday 2:10pm ~ 5:10pm, Room 706, First Engineering Building (工程一館)

Course Web Site: <http://mx.nthu.edu.tw/~mhuang>

Course Description

This course is aimed at introducing the concepts and design techniques of web services and is designed for students in the computer field who are interested in web service technologies. It covers both design and programming using web services design languages.

Web services encompass a set of related standards that can enable any two computer applications to communicate and exchange data via a network, such as the Internet. The primary standard used in web services is the Extensible Markup Language (XML). This course offers broad overviews of new technologies. It also explores the benefits that web services provide to business and discusses key concepts related to the technologies. This course is not only to improve the students' web programming skills, but also to learn in-depth treatments of technical concepts. The students will have opportunities to practice web services techniques on several projects and homeworks.

In this course, we may cover some concepts of network services and

management, if the schedule allows. Network management and services is getting important nowadays, especially Web services is getting popular.

Students will have opportunities to study all the concepts and materials via their homeworks and projects. This force them have strong experiences and knowledge for their future research, study, and/or job hunting.

Required Text

Web Services – A Technical Introduction, Deitel Developer Series, Pearson Education, 2003. (新月圖書公司代理, Tel: (02) 2331-7856, (02) 2331-1578 <http://www.bookcake.com.tw>)

References

1. *Service-Oriented Computing – Semantics, Processes, Agents*, Singh Huhns, WILEY, 2005. (新月圖書公司代理, Tel: (02) 2331-7856, (02) 2331-1578)
2. *Service-Oriented Architecture – A Field Guide to Integrating XML and Web Services*, Thomas Erl, Prentice Hall, 2004. (Online order from Amazon or other online shops)

Grading

(May be changed according to teaching statuses)

Midterm	25%
Final Exam	25%
Home works & Projects	50%

(May have 3 – 4 small projects and homeworks + a final project)

Major Topics

1. Web Services Business Models
2. Web Services and Enterprise Computing
3. XML and Derivative Technologies
4. SOA
5. SOAP
6. WSDL
7. Web Services Platforms
8. Introduction to Java Web Services
9. Introduction to .Net Web Services
10. Web Services Security
11. Web Services in Java
12. Network Management
13. Network Services