



Vietnam National University of HCMC  
International University  
School of Computer Science and Engineering



# **Web Application Development (IT093IU)**

**Dr. Nguyen Van Sinh**

[nvsinh@hcmiu.edu.vn](mailto:nvsinh@hcmiu.edu.vn)



# Lecturer

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- Lecturer & Lab section:
  - Lecturer: Dr.Nguyen Van Sinh
  - Lab section: Master.Pham Quoc Son Lam
  - Office: Room A1.610
  - Website: [it.hcmiu.edu.vn](http://it.hcmiu.edu.vn)
  - Email: [nvsinh@hcmiu.edu.vn](mailto:nvsinh@hcmiu.edu.vn)  
[pqslam@hcmiu.edu.vn](mailto:pqslam@hcmiu.edu.vn)



# Description

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- Introduce to web programming models and concepts, focused on J2EE (ex: .Net, PhP)
- Provide the knowledge of basic web design:
  - HTML.
  - Cascading Style Sheet.
  - Java Script; XML
  - Extend: Ajax, ZK framework
- Train core web technologies of J2EE.
- Support students skills to design and implement a web-based application.
- Experience in building a web program based on J2EE framework.



# Learning outcome

- Have knowledge and understanding the basics of web programming models and techniques
- Be able to develop some simple applications
- Manage core techniques of J2EE
- Obtain the essential skills in designing and developing web-based applications
- Improve self-study ability in other web building techniques



# Requirements

- This is one of the advanced courses; it has a fast pace and requires much effort spending *outside of class time*
- Students are expected (required) to attend all class sections on time and prepared (very important!)
- Students have to finish their assignments in time.
- If you cannot complete an assignment, contact the instructor/lab tutor (BEFORE THE DUE DATE)
- Tests are to be taken at the day and time scheduled. DO NOT copy from another student.



# Reading

- Textbooks:
  1. **Web-Based Application Development**, Ralph F.Grove, 2010.
  2. **Core Web Programming**. Second Edition, by Marty Hall and Larry Brown, Prentice Hall, 2001
  3. **Core Servlets and JavaServer Pages™**, Volume 1: Core Technologies, Second Edition. Marty Hall, Larry Brown, Prentice Hall PTR, 2003
  4. **The Struts Framework - Practical Guide for Java Programmers**. Sue Spielman, Morgan Kaufmann Publishers, 2003.
  5. **N.V.Sinh, N.T.T.Sang, T.M.Hà** "Xây dựng ứng dụng Web cho Thương mại điện tử trên Netbeans", Nhà xuất bản Xây dựng 2017.



# Activities

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- Lectures: 15 sessions, 3 teaching periods each. From 11/02/2019 → 09/06/2019
- Lab section: 12 sessions, 4 periods each. From 11/03/2019 → 19/05/2019
- **Marking:**
  - Midterm Exam (30%),
  - Lab + Project + Assignment (30%),
  - Final Exam (40%)



# Policies

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- Copy program, source code, report from others → Fail the course (check: Turnitin, GitHub)
- Absence  $\geq 25\%$  → not allow taking the final exam
- Quizzes will be checked random



# Lectures

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- Should prepare in advance
- Provided exercises at the end of each lecture



# Agenda

Week	Section (Handout)	Reading
1	L00. Introduction L01. Introduction to HTML	Ref1, chap 4; <b>ref5</b>
2	L02. Introduction to HTML (cont) L02. Cascading Style Sheet	Ref1, chap 4; <b>ref5</b>
3	L03. Introduction to J2EE	Ref4, chap 1; <b>ref5</b>
4	L04. Servlet	Ref1,4, chap 5; <b>ref5</b>
5	L05. Servlet (cont)	Ref1,4, chap 5; <b>ref5</b>
6	L06. Web state, session, cookies	Ref3, chaps 8-9; <b>ref5</b>
7	L07. Java Server Page	Ref1, chap 7; Ref4, chap 3; <b>ref5</b>
8	L08. Graphical models for web	Ref1, chapter 9; <b>ref5</b>
9	L09. Java Bean and MVC	Ref4, chapter 8, 9; <b>ref5</b>
10	L10. Integrate Servlet & JSP	Ref1,4, chap 5,7; <b>ref5</b>
11	L11. XML & XSLT	Ref2, chapter 23; <b>ref5</b>
12	L12. XML & XSLT (cont)	Ref2, chapter 23; <b>ref5</b>
13	L13. Java Script	Ref1, chapter 6; <b>ref5</b>
14	L14. Ajax & intro ZK framework	Ref1,5
15	L15. Struts & Review	Ref5



# Labs

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- Software:
  - IDE: Netbeans or Eclipse
  - Web Server: Tomcat or GlassFish
  - DBMS: MySQL
- Working:
  - 12 sections
  - Finish all required exercises for each lab
  - Attend labs to get advices on your assignments
  - Work hard on your exercises and assignment topics



# Assignments

- Working in group, 2 or 3 students/group
- 2 types of topics:
  - Selected topics are provided by lecturer
  - Your pre-thesis/thesis topic
- Work at home and in the labs
- **WHAT ARE WE LOOKING FOR?**
  - Demonstrate program
  - Report document
  - Implement various database functionalities (input data, query data, update, etc.)
  - Present result in the class

## Q & A

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**Thank for your attention!**



# Research topics

- ASP.Net
- PhP, Python, or Ruby(Ruby on Rails for web).
- Frontend: Javascript, Angular Js/2, React Js
- WordPress
- Web 3D, WebGL and VRML
- Responsive Web Design
- VR: Virtual reality; AR: Augmented reality
- Apply VR, AR in Ecommerce, online fashion, etc
- Games online, other entertainments.
- Etc.