



## **Textbook**

There is a required textbook for this course, which is a teaching packet entitled “Computer Applications in Forest Resource Management.” The reference texts will be recommended. The textbook, handouts distributed by the instructors and the reference texts will be mainly used for reading assignments and background materials.

## **Projects**

Students are required to accomplish two projects for this course during the semester. Each project should have two or three distinct modules. Each module of the project will concentrate on a specific application topic. The project should be programmed based on the principles of software engineering. The previous modules or components must be integrated to accomplish the current module. The students need to provide a combined document of programmer’s manual and user’s manual that must be accumulated from module 1 to final module over the course of the semester. A USB drive is required to store the project files.

### Project 1 – VB-based application:

- Each student needs to choose a reasonable size project in his/her area, such as timber cruising, harvesting simulation, stand generator, and so on.
- In addition to project design, the modules should include database development on the backend, VB interfaces on the front-end, and the integration of both front-end and backend.

### Project 2 – Web-based application:

- A group of two students will work on a project. Students will use information on web-based programming such as HTML or ASP to develop web pages for yourselves or your clients.
- Form, table, images, and others should be implemented in the project.

## **Grading**

This is a project-based course and the project will be 70% of the final grade. There will be three midterm tests in the class, which accounts for 30% of the students’ final grade.

Project 1	30%
Project 2	30%
Final Project Demo and Presentation	10%
Midterm Exams	30%

Grading Scale:	>= 90	A
	80 – 89	B
	70 – 79	C
	60 – 69	D
	< 60	F

### Useful Web Sites

#### This Course

<http://www.wdsc.caf.wvu.edu//jxwang/courses/wdsc555.html>

<http://www.wdsc.caf.wvu.edu/WDSCAdvisor/>

#### MS Access

<http://www.microsoft.com/office/access/default.asp>

#### Visual Basic

<http://msdn.microsoft.com/en-us/vstudio/ff606383> - Learn Visual Studio 2008

<http://visualbasic.about.com/?once=true&>

<http://www.vbcode.com/>

#### VBCE

<http://msdn.microsoft.com/library/default.asp?URL=/library/techart/adoce.htm>

#### HTML

<http://www.jalfrezi.com/fforms.htm>

#### VB, VC, ASP, Java, and others

<http://www.planet-source-code.com/>

### Additional References

Barwell, F., R. Case, B. Forgey, B. Hollis. 2003. Professional VB.NET. Wiley Publishing, INC. Indianapolis, IN 46256.

Buser, D., J. Kauffman, J. Llibre, B. Francis, D. Sussman, C. Ullman, and J. Duckett. 2000. Beginning Active Server Page 3.0. Wrox Press Ltd., Birmingham, UK.

Carrano, F. 1995. Data abstraction and problem solving with C++. Addison-Wesley Publishing Company, Menlo Park, CA.

Groh, M., J. Stockman, G. Powell, C. Prague, M. Irwin, and J. Reardon. 2007. Access 2007 Bible. Wiley Publishing, Inc. Indianapolis, IN.

Microsoft Corporation. 2011. Learning Visual Studio 2008.  
<http://msdn.microsoft.com/en-us/vstudio/ff606383>.

Microsoft Corporation. 1998. Visual Basic 6.0 – Programmer’s guide. Microsoft Press. Redmond, WA.

Microsoft Corporation. 1998. Visual InterDev 6.0 – Programmer’s guide. Microsoft Press. Redmond, WA.

Oliver, D. 2001. Sams Teach Yourself HTML and XHTML in 24 Hours. Sams Publishing, Indianapolis, Indiana, USA.

Prague, C. and M. Irwin. 1999. Microsoft Access 2000 Bible. IDG Books Worldwide, Inc. Foster City, CA.

Roof, L. 1998. Professional Visual Basic Windows CE Programming. Wrox Press Ltd., Birmingham, UK.

Ullman, J. and J. Widow. 1997. A first course in database systems. Prentice Hall, Upper Saddle River, New Jersey.

### **Social Justice Statement**

West Virginia University has expressed a commitment to social justice. I concur with that commitment and expect to foster a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. Our University should not discriminate on the basis of race, sex, disability, veteran status, and religion.

### Tentative Class Schedule

Week	Date	Lectures and Labs
1	01/09  01/13	Introduction to WDSC 555 web page  Introduction to OOP and Software Engineering  OOP and Software Engineering (cont'd)  Project Design – Requirements and Specifications
2	01/16  01/20	Holiday – no class  Database Concepts and Terminology  Relational data model  Project Design
3	01/23  01/27	Entity relational data model  SQL  Project Design
4	01/30  02/03	Introduction to MS Access Database  Tour of MS Access  Project Module 1 – Database Application
5	02/06  02/10	Database design – table and query  Form and report  Project design document due Project Module 1
6	02/13  02/17	Database application in Forest Resource Management  Database application in Forest Resource Management (cont'd) Project Module 1 due  Term Exam 1
7	02/20  02/24	VB concepts and your first VB application  Understanding of VB controls  Project Module 2 – VB/Web Application
8	02/27	VB Project and Menu design  VB programming and interface design

	03/02	Project Module 2
9	03/05	VB programming (cont'd) VB programming and data access objects
	03/09	Project Module 2
10	03/12	VB application example in Forest Resource Management
	03/16	VB application example in Forest Resource Management VB CE concepts and its application
11	03/19	VB CE example in Forest Resource management Project Module 2 due
	03/23	Term Exam 2
12	03/26	Spring recess – no class
	03/30	
13	04/02	Introduction to Web-based application HTML
	04/06	Good Friday Holiday – no class
14	04/09	Basic ASP Techniques
	04/13	ASP and Data Store Access
15	04/16	Web-based application example in Forest Resource Management Project: Final Module – Integration and report
	04/20	Final Module
16	04/23	Term Exam 3
	04/27	Final Project - report, demo, and presentation
17	05/03	Final Project reports, Demo and Presentation (Thursday, 8:00-10:00)