

**Macquarie University**  
**Stat329: Electronic Commerce: Database Applications**  
**Information for Students 2004**

**Introduction**

The unit Stat329 will run for 13 weeks of formal sequential learning. It is not at present available in distance learning mode. Lectures are on Tuesdays from 5-7 pm in W5C 220 followed by labs in W6B 301 from 7-9 pm on Tuesdays or 5-7 pm or 7-9 pm on Wednesdays.

**Lecturer:** Professor Don McNeil

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**Unit outline**

The unit targets students planning a Statistics major who already have some basic computing skills, including some knowledge of HTML, an understanding of relational database concepts, and the ability to program in an object-oriented language such as VBScript (or willingness to learn). Thus students should have completed at least two 200-level Statistics units, or have equivalent knowledge. The objectives are

- (a) to gain an understanding of how websites are set up and maintained for private, commercial, and teaching use;
- (b) to develop some expertise with the relevant software needed to develop such websites, namely a **browser**, a **page editor**, a **web server**, and a **relational database**; and
- (c) to learn about relevant applications of web-database engineering, including statistical graphics systems and on-line data processing.

In this unit, we will use the Internet Explorer browser, the Visual InterDev editor, IIS (Internet Information Server) running on NT, and SQL Server as the database. We will also learn how to use PHP with MySQL. For students enrolled in Stat329 these facilities are available in the Statistics Department's Advanced Computing Laboratory Intranet in W6B 301.

The proposed timetable at present (August 2004) is as follows:

<i>Week</i>	<i>Topic</i>	<i>Software Introduced</i>
1	Website design/architecture	HTML
2	SQL queries	MS Access, Visual InterDev
3	HTML & VBScript programming	VBScript, SQL Server
4	ASP & JavaScript	JavaScript
5	Web-database connectivity	
6	Further JavaScript & E-commerce security	
7	Cascading Styles Sheets	CSS
8	Personal Home Pages	PHP
9	MySQL	MySQL
10-12	Statistical Graphics via the Browser	
13	Revision	

## References

There is no single prescribed textbook. The following references will be used initially. Further references will be added to this list in due course as required. A copy of each book is available in W6B301, but no book may be removed from this room.

Elizabeth Castro: *HTML for the World Wide Web* (4<sup>th</sup> ed). Peachpit Press.  
Berkeley: CA (2000).

Thomas A. Powell: *Web Design: The Complete Reference*. Osborne/McGraw-Hill.  
Berkeley: CA (2000).

Vanessa Donnelly: *Designing Easy-to-use Websites*. Addison-Wesley. Harlow:  
England (2001).

Ned Snell: *SAMS Teach Yourself to Create Web Pages in 24 Hours* (2<sup>nd</sup> ed).  
Macmillan. Indianapolis: Indiana (1999).

Kelly Valqui & Eunice Friere: *Web Design and Development*. Charles River Media.  
Hingham: MA (2001).

John Kauffman: *Beginning ASP Databases*. Wrox Press. Birmingham: UK. (1999).

Timothy Eden & Patricia Hartman: *Active Server Pages in Plain English*. M&T  
Books. Foster City: CA (2001).

Mike Gunderloy & Joseph L Jordan: *Mastering SQL Server 2000*. Sybex. San  
Francisco: CA (2000).

Eric A Meyer: *Cascading Style Sheets: The Definitive Guide*. O'Reilly. Sebastopol:  
CA (2000).

David Flanagan: *JavaScript: The Definitive Guide* (4<sup>th</sup> ed). O'Reilly. Sebastopol:  
CA (2002).

Danny Goodman: *Dynamic HTML: The Definitive Reference*. O'Reilly. Sebastopol:  
CA (1998).

Stephen Walther & Jonathan Levine: *SAMS Teach Yourself E-Commerce  
Programming with ASP in 21 Days*. Macmillan. Indianapolis: Indiana (2000).

Michael Howard: *Designing Secure Web-Based Applications for Microsoft Windows  
2000*. Microsoft Press. Redmond: WA (2000).

## Lecture Overheads and Data

PowerPoint slides covering each week's material will be available on the Intranet web site associated with Stat329, and printouts will be provided to enrolled students, together with tutorial exercises and relevant handouts. Some notes, and most datasets used, will also be downloadable from the website.

## Assignments

Three assignments will be set and **on-time submission is compulsory**. Each is worth 13% of the total assessment. The hand-in dates are as follows:

Assignment 1: 25 August

Assignment 2: 6 October

Assignment 3: 3 November

To gain credit, students must submit all assignments, regardless of their performance in the final examination. Students, who are unable to submit any assignment on time,

because of illness or other valid cause, will need to report the circumstances *in writing* to the lecturer.

### **Group Work**

To enhance individual learning, groups will be formed in the third week, and the group (rather than the individual) will submit some assignments (including the second assignment). Each group will comprise a project manager, a designer, and two programmers.

Since learning is often best achieved through group work, students enrolled in Stat329 are strongly encouraged to share their knowledge with each other and, most important, to also give the lecturer the benefit of their knowledge.

### **Examination**

This will be held during the fortnight beginning on 10 November and will examine any material covered throughout the unit. Students may bring an A4 sized sheet of notes, formulas, etc., which may be written and/or printed (in a font no smaller than size 10) on both sides. Any other materials such as lecture notes and textbooks are not permitted. Calculators may be used, provided they are not of the text/programmable type. Mobile phones may not be used.

### **Assessment**

The overall assessment for Stat329 is thus:

Assignments	40%
Final examination	60%

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