

COMP 3011 INTERNET PROGRAMMING

Credit Points 10

Legacy Code 300130

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Description This unit offers students basic concepts and latest technologies of internet programming and web-based application development. Utilising one of the popular internet programming languages, such as Java, it aims to develop the programming skills and methodologies required for both client-side and server-side programming as well as general purpose programming. The range of topics covered by the unit includes HTML, XML, Java applets, desktop application in Java, servlets, JavaServer Pages and JDBC.

School Computer, Data & Math Sciences

Discipline Programming

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Pre-requisite(s) COMP 2014 OR
COMP 2015 OR
ELEC 1006 OR
COMP 2016

Equivalent Subjects LGYA 5876 - Internet Computing

Assumed Knowledge

Basic knowledge on internet browsing and any object-oriented programming language.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Explain the basic principles and concepts in programming design and implementation for the Internet;
2. Write programs that efficiently utilize basic data structures and algorithms, applets, threads, and basic GUI components;
3. Design web pages by using web forms, applets and CGI scripts;
4. Apply the Java features for Internet application development, including Servlets, JSP, and JDBC;
5. Explain the concepts of encapsulation, inheritance and polymorphism in terms of the design and implementation of Java classes and applications;
6. Use Java API packages.

Subject Content

- brief introduction to web forms, CGI programming, and their Roles in website development
- concepts of encapsulation, inheritance and polymorphism in terms of Java programming language
- GUI, multi-threads
- events, exceptions and I/O
- Servlets and Java Server pages
- simple use of Java database connectivity

- TCP/IP, client and Server networking with The use of sockets
- internet security enforced via Java
- Java API packages

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Individual assignment	10-15 hours of work	15	N	Individual
Group assignment	900-1800 words	25	N	Group
Three practical exercises	1-2 hours of work each	15	N	Individual
Final examination	2 hours	45	N	Individual

Teaching Periods