

# COMP 2020 TECHNOLOGIES FOR WEB APPLICATIONS

**Credit Points** 10

**Legacy Code** 300582

**Coordinator** Paul Davies ([https://directory.westernsydney.edu.au/search/name/Paul Davies/](https://directory.westernsydney.edu.au/search/name/Paul%20Davies/))

**Description** Building on material covered in Programming Fundamentals this unit introduces students to some of the key technologies for developing interactive and dynamic web applications from both the client and server perspective. The unit covers web site design, web site development, web page accessibility and usability, HTML, CSS, client side and server side scripting, database interaction, web site promotion (Search Engine Optimisation) and web security.

**School** Computer, Data & Math Sciences

**Discipline** Computer Science, Not Elsewhere Classified.

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

**Pre-requisite(s)** COMP 1005

**Equivalent Subjects** COMP 2012 - Interactive Web Site Development

**Incompatible Subjects** LGYA 5748 - Creating and Managing Web Sites

## Assumed Knowledge

Basic programming principles and program control structures equivalent to that covered in Programming Fundamentals. Basic file management and PC operation including how to access and search the World Wide Web.

## Learning Outcomes

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

1. Create simple web pages demonstrating a working knowledge of HTML and Cascading Style Sheets.
2. Create web pages that include appropriate multimedia content to enhance presentation and/or usability.
3. Create web-based forms incorporating client side scripting to validate user input on the browser.
4. Construct simple dynamic web pages with server side database interaction and server side scripting.
5. Create functional and usable web sites using technologies outlined in learning outcomes 1, 3 and 4 and incorporating: basic principles of human-computer interface design; current accessibility principles and standards; current search engine optimisation techniques.
6. Implement appropriate server-side code to provide simple authentication and access control to a web application.

## Subject Content

- brief history of The internet & The World wide Web.
- web page design: use of HTML elements in web page layout, Cascading style sheets and Issues of human-computer interface design

including current Standards in accessibility. incorporating sound, video, and animations into web pages.

- current techniques of search engine optimisation.

- HTML forms: input devices and their use for capturing client side information.

- client side scripting using A relevant scripting language (for example JavaScript): making use of client side scripts to enable interactivity with The user and to validate user input.

- Server side scripting & data bases: making use of Server side scripts to Create dynamic web applications that interface with online databases. environment Variables, SQL and Server side includes. A relevant scripting language and Server side scripting environment.

- web and internet security: Basic Server and client security, SSL, digital Certificates and enabling security through scripts.

## 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
Professional Task	90 minutes	30	Y	Individual
Professional Task	Two sets – 6 to 10 web pages each deliverable	40	N	Individual
Applied Project	Up to 15 interactive and dynamic web pages	30	N	Individual

Prescribed Texts

- McCown, F. (2020). Web Programming. zyBooks: Wiley

Teaching Periods

## Summer A

### Parramatta - Victoria Rd

#### Day

**Subject Contact** Rhys Tague ([https://directory.westernsydney.edu.au/search/name/Rhys Tague/](https://directory.westernsydney.edu.au/search/name/Rhys%20Tague/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-SUA\\_PS\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-SUA_PS_D#subjects))

## Autumn

### Campbelltown

#### Day

**Subject Contact** Paul Davies ([https://directory.westernsydney.edu.au/search/name/Paul Davies/](https://directory.westernsydney.edu.au/search/name/Paul%20Davies/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-AUT\\_CA\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-AUT_CA_D#subjects))

## Penrith (Kingswood)

#### Day

**Subject Contact** Paul Davies ([https://directory.westernsydney.edu.au/search/name/Paul Davies/](https://directory.westernsydney.edu.au/search/name/Paul%20Davies/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-AUT\\_KW\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-AUT_KW_D#subjects))

## **Parramatta - Victoria Rd**

### **Day**

**Subject Contact** Paul Davies ([https://directory.westernsydney.edu.au/search/name/Paul Davies/](https://directory.westernsydney.edu.au/search/name/Paul%20Davies/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-AUT\\_PS\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-AUT_PS_D#subjects))

## **WSU Online TRI-2**

### **Wsu Online**

#### **Online**

**Subject Contact** Paul Davies ([https://directory.westernsydney.edu.au/search/name/Paul Davies/](https://directory.westernsydney.edu.au/search/name/Paul%20Davies/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-OT2\\_OW\\_O#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-OT2_OW_O#subjects))

## **Sydney City Campus - Term 2**

### **Sydney City**

#### **Day**

**Subject Contact** Mahsa Razavi ([https://directory.westernsydney.edu.au/search/name/Mahsa Razavi/](https://directory.westernsydney.edu.au/search/name/Mahsa%20Razavi/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-SC2\\_SC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-SC2_SC_D#subjects))

## **Sydney City Campus - Term 3**

### **Sydney City**

#### **Day**

**Subject Contact** Mahsa Razavi ([https://directory.westernsydney.edu.au/search/name/Mahsa Razavi/](https://directory.westernsydney.edu.au/search/name/Mahsa%20Razavi/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=COMP2020\\_22-SC3\\_SC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2020_22-SC3_SC_D#subjects))