

# INFO 7013 WEB ENGINEERING

**Credit Points** 10

**Legacy Code** 300443

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

**Description** Today organizations extensively rely on web based information systems to market, sell, manage customer relations, and for most of the internal operations. Users are increasingly using mobile devices to interact with this information. Due to rapidly changing business environment these systems need to be designed in away to accommodate the frequent changes. New technologies and frameworks have been developed to support development of large, complex, mobile based, maintainable and evolutionary web systems. In this subject students will study some of these technologies, design methods and frameworks that can be successfully used to engineer such web systems. They will get hands on experience by developing such a system.

**School** Computer, Data & Math Sciences

**Discipline** Information Technology, Not Elsewhere Classified.

**Student Contribution Band** HECS Band 2 10cp

**Level** Postgraduate Coursework Level 7 subject

**Equivalent Subjects** LGYA 5881 - Web Application Development

## Restrictions

Students must be enrolled in a postgraduate program offered by the School of Computer, Data and mathematical Sciences.

## Assumed Knowledge

Ability to develop simple static web sites. Knowledge about server-side and browser-side scripting.

## Learning Outcomes

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

1. Identify the types of Web based systems and develop conceptual models to meet the specific information needs and/or to support a set of business processes.
2. Select a suitable development process based on needs and constraints.
3. Develop a suitable architecture for the Web System within the constraints, policies and guidelines.
4. Model and design various components as per the architecture.
5. Develop user interfaces based on usability guidelines.
6. Select appropriate technologies and standards to implement these components.
7. Create a project plan to develop the system.
8. Implement and test the critical components of the Web System.
9. Demonstrate the ability to work in a team environment in relation to Web development projects.

## Subject Content

- Overview of web Engineering
- types of web systems and characteristics

- conceptual modeling of web systems
- design of user Interfaces and user interaction Models
- web technologies and Standards
- web system architectures
- design methodologies
- web development processes

## 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.

Type	Length	Percent	Threshold	Individual/Group Task
Practical	5x 2 hour lab sessions and a 90 minutes quiz at the end of the 5 lab sessions.	35	Y	Individual
Report	Technical paper of about 1000-1500 words and a class presentation	15	Y	Individual
Applied Project	Team activity over 9 weeks	20	Y	Group
Final Exam	2 hours	30	Y	Individual

Teaching Periods

## Autumn (2022)

### Parramatta - Victoria Rd

#### Day

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=INFO7013\\_22-AUT\\_PS\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=INFO7013_22-AUT_PS_D#subjects))

## Sydney City Campus - Term 1 (2022)

### 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/))

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## Autumn (2023)

### Parramatta - Victoria Rd

#### On-site

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

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## **Sydney City Campus - Term 2 (2023)**

### **Sydney City**

#### **On-site**

**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/odd/timetable/?subject\\_code=INFO7013\\_23-SC2\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFO7013_23-SC2_SC_1#subjects))