COMP 2021 SOFTWARE ENGINEERING FUNDAMENTALS

Credit Points 10

Legacy Code 301343

Coordinator Paul Davies (https://directory.westernsydney.edu.au/search/name/Paul Davies/)

Description This subject introduces software engineering principles including basic software lifecycle concepts, modern development methodologies and version control, conceptual modelling and how these activities relate to programming. Students apply this knowledge together with essential team-based project management to design, build and deploy a simple web-based application. The subject provides students with the skills required in software design and development and prepares them to work in a team setting.

School Computer, Data & Math Sciences

Discipline Programming

Student Contribution Band HECS Band 2 10cp

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

Level Undergraduate Level 2 subject

Pre-requisite(s) ENGR 1045
OR
COMP 1005

Incompatible Subjects INFS 1006
INFS 1007
INFS 1015
COMP 2020

Learning Outcomes

1. Analyse functional and non-functional requirements within a problem domain
2. Design a software system using conceptual data modelling based on ER models, object-oriented design principles, best practice design paradigm
3. Implement web-based system architecture and system design on web platforms
4. Test implementation of a designed software system
5. Collaborate with others using a project management framework, version control and continuous integration for agile software practices
6. Communicate in a professional manner in different formats

Subject Content

- Basic software engineering (life-cycle of software system including elicitation, analysis and specification, design, construction, verification and validation, and deployment)
- Software engineering methods
- Agile project management
- Version Control using Git
- Python Programming
- Javascript, HTML, CSS Fundamentals
- Web-based system architecture and development practices

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	Mandatory
Case Study	1000 Words	20	N	Individual	N
Applied Project	Applied Project: Up to 15 interactive and dynamic web pages Presentatio 15 minutes (per group)	35	N	Group	N
Professional Task	30 minutes each	30	Y	Individual	Y
Quiz	5 quizzes @ 10 minutes each	15	N	Individual	Y

Teaching Periods

Surabaya Semester 2 (2025)
Surabaya
On-site
Subject Contact Paul Davies (https://directory.westernsydney.edu.au/search/name/Paul Davies/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP2021_25-IS2_SU_1#subjects)

Autumn (2025)
Campbelltown
Hybrid
Subject Contact Paul Davies (https://directory.westernsydney.edu.au/search/name/Paul Davies/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP2021_25-AUT_CA_3#subjects)

Parramatta - Victoria Rd
Hybrid
Subject Contact Paul Davies (https://directory.westernsydney.edu.au/search/name/Paul Davies/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP2021_25-AUT_PS_3#subjects)

Sydney City Campus - Term 2 (2025)
Sydney City
On-site
Subject Contact Mahsa Razavi (https://directory.westernsydney.edu.au/search/name/Mahsa Razavi/)

View timetable (https://classregistration.westernsydney.edu.au/odd/
timetable/?subject_code=COMP2021_25-SC2_SC_1#subjects)

Spring (2025)
Campbelltown
Hybrid
Subject Contact Paul Davies (https://directory.westernsydney.edu.au/
search/name/Paul Davies/)

View timetable (https://classregistration.westernsydney.edu.au/odd/
timetable/?subject_code=COMP2021_25-SPR_CA_3#subjects)

Penrith (Kingswood)
Hybrid
Subject Contact Paul Davies (https://directory.westernsydney.edu.au/
search/name/Paul Davies/)

View timetable (https://classregistration.westernsydney.edu.au/odd/
timetable/?subject_code=COMP2021_25-SPR_KW_3#subjects)

Parramatta - Victoria Rd
Hybrid
Subject Contact Paul Davies (https://directory.westernsydney.edu.au/
search/name/Paul Davies/)

View timetable (https://classregistration.westernsydney.edu.au/odd/
timetable/?subject_code=COMP2021_25-SPR_PS_3#subjects)

Sydney City Campus - Term 3 (2025)
Sydney City
On-site
Subject Contact Mahsa Razavi (https://
directory.westernsydney.edu.au/search/name/Mahsa Razavi/)

View timetable (https://classregistration.westernsydney.edu.au/odd/
timetable/?subject_code=COMP2021_25-SC3_SC_1#subjects)