COMP 2014 OBJECT ORIENTED PROGRAMMING

Credit Points 10

Legacy Code 300147

Coordinator Vernon Asuncion (https://directory.westernsydney.edu.au/search/name/Vernon Asuncion/)

Description This subject presents the concepts and principles of programming languages with the emphasis on object oriented paradigm. It addresses the importance of the separation of behaviour and implementation as well as effective use of encapsulation, inheritance and polymorphism. The students will gain intensive training in programming skills with supervised laboratory sessions and task oriented assignments.

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) COMP 1005 OR
ENGR 1045

Restrictions

Before taking COMP 2014, students must pass either COMP 1005 or ENGR 1045

Learning Outcomes

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

1. Explain the principles of object oriented programming
2. Explain the concepts of abstract data types, encapsulation and information hiding, class inheritance and polymorphism.
3. Write programs to demonstrate understanding of encapsulation, data hiding, compositions and basic data operations.
4. Write program in object oriented style to solve real-world problems using inheritance and polymorphism.

Subject Content

1. Concepts and principles of object oriented programming languages
2. Elements of syntax and semantics of programming languages
3. OOP concepts: encapsulation, information hiding, class inheritance, and polymorphism
4. Abstract classes and interfaces
5. Programming styles, conventions, pitfalls and debugging
6. API: utility classes, arrays, collections
7. OO approach in other programming languages

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
Professional Task	10 hour average workload	15	N	Individual
Professional Task	10 hour average workload	15	N	Individual
Practical	2 hours (for 12 weeks)	20	N	Individual
Final Exam	2 hours	50	N	Individual

Prescribed Texts

- Savitch, W. J., & Mock, K. (2016). Absolute C++ (6th ed.). Hoboken, NJ: Pearson.

Teaching Periods

Spring (2024)

Penrith (Kingswood)

On-site

Subject Contact Vernon Asuncion (https://directory.westernsydney.edu.au/search/name/Vernon Asuncion/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2014_24-SPR_KW_1#subjects)

Parramatta - Victoria Rd

On-site

Subject Contact Vernon Asuncion (https://directory.westernsydney.edu.au/search/name/Vernon Asuncion/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP2014_24-SPR_PS_1#subjects)