COMP 0003 PROGRAMMING DESIGN (WSTC PREP)

Credit Points 5

Legacy Code 700047

Coordinator Buddhima De Silva (https://directory.westernsydney.edu.au/search/name/Buddhima De Silva/)

Description This unit introduces students to the principles required for the effective design and development of solutions to computer program related problems. This unit has been developed to enhance a student's practical ability as well as build a solid theoretical foundation for further study in programming.

School Western Sydney The College

Discipline Programming

Student Contribution Band HECS Band 2 5cp

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

Level Undergraduate Level 0 Preparatory subject

Equivalent Subjects LGYB 0451 - Programming Design (UWSCDip) COMP 0004 - Programming Design (UWSC)

Restrictions Students must be enrolled at Western Sydney University, The College.

Assumed Knowledge

The ability to create a mathematical expression for a given problem scenario. This would require knowledge of basic arithmetic, percentages and simple statistical measures.

Learning Outcomes

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

1. Describe what is meant by the terms programming and structured programming.
2. Describe the steps involved in the program development process in solving problems.
3. Illustrate the steps involved in program development using IPO charts.
4. Explain what is meant by the term programming language.
5. Design an algorithm that applies structured programming techniques to solve a given problem.
6. Develop a set of input test data and deskcheck pseudocode.
7. Describe what is meant by modularisation, module cohesion and coupling and parameter passing with different aspects of cohesion and coupling.
8. Design and implement a program solution using an Integrated Development Environment.

Subject Content

1. Introduction to program design
2. Introduction to IPO charts flow charts and pseudocode algorithms
3. Introduction to selection control structures
4. Introduction to repetition control structures
5. Introduction to desk checking the solution algorithm
6. Introduction to modularisation, cohesion and coupling

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
Applied Project		15	N	Individual
Quiz		20	N	Individual
Applied Project		15	N	Individual
Participation		10	N	Individual
Report		40	N	Individual

Teaching Periods

Term 1

Nirimba Education Precinct

Day

Subject Contact Buddhima De Silva (https://directory.westernsydney.edu.au/search/name/Buddhima De Silva/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP0003_22-T1_BL_D#subjects)

Term 2

Nirimba Education Precinct

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP0003_22-T2_BL_D#subjects)