Course Information

ENGG1111 Computer Programming and Applications

2012-13				
Instructor(s):	**Wong Kenneth**	(Class A)	No. of credit(s):	6
	Chui C K	(Class B)		
	Mitcheson George	(Class C)		
Recommended Learning Hours:	Lecture: 27 Lab Session: 12			
Pre-requisite(s):				
Co-requisite(s):				
Remarks:	This course may not be taken with CSIS1117 or ENGG1013 or ENGG1014.			

Course Learning Outcomes

1. Analyze simple problems and derive solutions, providing a logical flow of instructions
2. Use and construct functions for structured computer programs
3. Demonstrate competency in the use of various data structures in program writing
4. Identify and correct different types of programming errors, including data validation
5. Demonstrate competency in program testing and debugging

Syllabus

Calendar Entry:
This course covers both the basic and advanced features of the C/C++ programming languages, including syntax, identifiers, data types, control statements, functions, arrays, file access, objects and classes, class string, structures and pointers. It introduces programming techniques such as recursion, linked lists and dynamic data structures. The concept and skills of program design, implementation and debugging, with emphasis on problem-solving, will also be covered.

Target students are those who wish to complete the programming course in a more intensive mode in 1 semester. Students with some programming knowledge are encouraged to take this course.

Detailed Description:

Weeks 1-6 Basic programming.	**Mapped to Outcomes**
C++ syntax, identifiers, data types, control statements, functions, arrays, file access	1, 2
Program design, implementation and debugging, problem solving	1, 4, 5
Weeks 7-13: Advance features.	**Mapped to Outcomes**
Class and objects, string, structures and pointers, recursion, linked list, dynamic data structures	1, 2, 3

Assessment:
Continuous Assessment: 50%
Written Examination: 50%

Teaching Plan
Class ENGG1111A Class ENGG1111B Class ENGG1111C

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