COURSE DETAIL

ADVANCED PROGRAMMING METHODOLOGY

Country
Singapore

Host Institution
National University of Singapore

Program(s)
National University of Singapore

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Computer Science

UCEAP Course Number
119

UCEAP Course Suffix
A

UCEAP Official Title
ADVANCED PROGRAMMING METHODOLOGY

UCEAP Transcript Title
ADV PROGRAM METHOD

UCEAP Quarter Units
6.00

UCEAP Semester Units

4.00

Course Description
This course is a follow up to CS1010, Programming Methodology. It explores two modern programming paradigms, object-oriented programming and functional programming. Through a series of integrated assignments, students learn to develop medium-scale software programs in the order of thousands of lines of code and tens of classes using object oriented design principles and advanced programming constructs available in the two paradigms. Topics include objects and classes, composition, association, inheritance, interface, polymorphism, abstract classes, dynamic binding, lambda expression, effect-free programming, first class functions, closures, continuations, monad, etc.

Language(s) of Instruction
English

Host Institution Course Number
CS2030

Host Institution Course Title
PROGRAMMING METHODOLOGY II

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science

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