Course1 syllabus
Spring 2018

Week	Topic	Assignments (Homework and Lab)
1	Arithmetic expressions and functions, function signature and purpose statements, test cases	
2	Compound data (structures), data definitions, conditionals, helper functions	Helper functions (calculating profit), functions over structures (Valentine's day gift data), conditionals (determining astronomical seasons)
3	Lists of atomic data, the design recipe	Functions over lists of strings, functions over structures (course enrollment data), data definitions and test cases for lists of atomic data
4	Lists of structures, helper functions for lists of structures, binary trees	Functions over lists of structs
5	Binary search trees, N-ary trees	Binary search trees (taxpayer database)
6	Higher-order functions: filter and map, local	N-ary trees (river system)
7	Accumulators, mutable variables, mutation	Map and filter, accumulators, mutable variables
8	Mutation	None (end of course)

Course2 syllabus
Fall 2018

Week	Topic	Assignments
1	Arithmetic expressions	
2	Booleans, conditionals, the design recipe	Functions and tests relating to numbers, images, and strings
3	Structures	Functions and tests relating to numbers, images, and strings; programs using conditional data
4	Unions, self-referential data definitions	designing data definitions, using structures; programs using structured data
5	Lists and designing functions on lists, lists of structures	Working with external libraries; functions over unions and self-referential data
6	Abstractions	
7	Abstractions, scope and local	Functions over lists and compound data
8	Design recipe for abstractions, programming with I/O	Abstractions, map, filter, foldr
9	Trees	Processing large amounts of data using I/O; list-processing
10	Graphs	Processing tree-structured and mutually-recursive data
11	Generative recursion	
12	Generative recursion	Process graphs (network of people)
13	Accumulators, lambda	Generative recursion
14	Lambda	Designing with accumulators