



Swift Coding Scope & Sequence

Grading Period	Unit Title	Learning Targets	Mentor Topics
First Grading Period	Print Statements and Strings	<ul style="list-style-type: none"> ● print() functions ● Vocab: playgrounds, output, function, console ● Double quotes “ ” ● Concatenation (+) ● Escape Characters (for single quotes, backslash, and tabs) ● Storing values (let vs var) ● Multi-Literal Strings ● Changing var values ● Comments (\\ vs * *\\) ● readLine() function ● Interpolation 	Security
	Data Types and Basic Math Functions	<ul style="list-style-type: none"> ● Data Types ● Int, Doubles, Bool, Strings ● How to stores in all data types and what to store ● Type Inference ● Type Safety ● Basic math functions (+,-,*, \) using Ints vs Doubles ● Modulus function (%) and how it works with Ints vs Doubles 	Compliance
	Operations and Type Casting	<ul style="list-style-type: none"> ● Compound assignments (+=, -=, *=, \=, %=) ● Order of operations ● Numeric Type Conversion ● Type Casting ● Random Numbers (arc4random_uniform(x)) ● Optionals (wrapping & unwrapping) ● Creating their 1st app (xCode project, labels, textFields, button, linking, compile, run, debugging) ● Setting and Getting Texts 	Mobile App Dev Frameworks

Second Grading Period	Parts of a class	<ul style="list-style-type: none"> ● Class ● How to build a class ● IBOutlet vs IB Actions ● Global Variables vs Local Variables ● Functions vs Variables ● Functions w/ vs w/o return types ● Input values ● Parameters ● _sender: Any ● Debugging linking issues 	UX /UI Design App Design Patterns
	if statements	<ul style="list-style-type: none"> ● Defining If statements ● Multiple If statements ● Relational (==, >, < >=, <=, !=) ● If statements with different data types ● If statements within return type functions ● .count variable ● Nested If statements 	Solution Architecture & Design
	If else if statements	<ul style="list-style-type: none"> ● If else if statements ● Logical Operators (, &, !) ● Ascii values ● Analysing an ascii chart 	IoT
Third Grading Period	Loops	<ul style="list-style-type: none"> ● For loops <ul style="list-style-type: none"> ○ Parts ○ Uses ○ In return types ● While loops <ul style="list-style-type: none"> ○ Vs For loops ○ Uses ● Loops with if statements ● Break ● Loops in functions ● Loops with relationals and compound assignments 	App Performance

	Loops II and Strings	<ul style="list-style-type: none"> Loops w/o variables Loops with char Strings as characters .enumerated For loops with two parameters Complex loops String functions and variables (.count, .isEmpty, .lowercased(), .uppercased(), hasPrefix(x), hasSuffix(x), .contains(x)) and function uses. Manipulating Strings (add at the beginning or end of string) 	Cloud
	Arrays	<ul style="list-style-type: none"> Building arrays Finding the index Appending Appending multiple values .count in Arrays More functions in Arrays (.isEmpty, .remove(at:x), .removeLast(), .removeAll()) 	Development Best Practices
Fourth Grading Period	App Design and Function I	<p>Students will be building elaborate apps. They will be assessed on user friendly design along with proper coding techniques.</p> <p>Students will research and share techniques of building a user friendly design (Mentors?)</p>	Requirements & Analysis
	App Design and Function II	Students research and design apps based on gaps (find problems and identify gaps to come up with useful ideas)	
	App Design and Function III		