

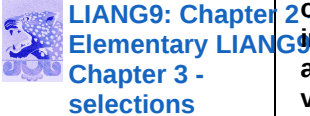






CIT-111: Introduction to Programming




The following table maps course session dates, lesson topics, LIANG9 references, and content links for all three Java courses in the series.

Course	SP19 Est.	Wk	Session description	Resources	Language objectives	Out-of-class work
CIT-111	MON 27-JAN-2020	n/a		 LIANG9: Chapter 1		
CIT-111	WED 29-JAN-2020	1 2	Compiling existing source code into Java programs and tinkering with their guts; Exposure to code editing tools in NetBeans; internalizing the Java system's components and their flow			
CIT-111	MON 3-FEB-2020	2 1	Digestion of the Java source code lifecycle: .java files --> compiler --> bytecode --> JVM (interpreter). Create blocks with { and }	<p>Java's basic grammar: Blocks, Types, variables, operators, and method calls</p> <p>Module 1: Essential Elements description</p>  LIANG9: Chapter 2	<p>TR.111.1.L.1: Segment Java code into blocks, statements, and comments</p> <p>TR.111.1.L.2: Classify Java code into categories:</p> <ul style="list-style-type: none"> A) block structure formation B) keywords C) identifiers D) operators E) Method calls <p>CCAC.111.LT.1: Computer systems and environments including computer org., langs, and object programming</p> <p>TR.111.1.E.1: Interpret the use of block-delimiting characters to create structural relationships inside a computer program</p> <p>TR.111.1.E.2: Encode a nested-block</p>	
				<p>Exercise 1: Tweaking a pre-written Java console-only program</p> <p>Exercise 2: Tweaking a pre-written Java program that includes a Graphical User Interface (GUI)</p> <p>Exercise 3: Dissecting Java code by extracting blocks</p> <p>Exercise 4: Building your own Java</p>		

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CIT-111	WED 5-FEB-2020	2		Creating projects, packages, and source files in NetBeans Copying pre-written code and tweaking text output and variable types		<p>structure in a linear sequence of computer instructions</p> <p>TR.111.1.E.3: Create a rough draft of a code organization schema inside Netbeans for storing Java files related to this course</p> <p>TR.111.1.P.0: Classify job postings related to Java programming: level, application type, etc.</p> <p>TR.111.1.P.1: Diagram the relationship between the Java Virtual Machine (JVM), the NetBeans Integrated Development Environment(IDE), and a program's source and class file set</p> <p>CCAC.111.LT.2: Executing java programs using and IDE</p>	
			3	<p>- Right type or wrong type? Exercise - git - Introduction to branching with if() - Introduction to flow charting - Creating Might We Be Friends? Flow chart</p>	<p>Branching fundamentals: block selection with if() description</p> <p>LIANG9: Chapter 3 - selections</p> <p>Exercise 1: Sharing code with git</p> <p>Exercise 2: Reviewing chapter 2 with the operator challenge</p> <p>Exercise 3: Flow charting essentials - Creating your might-we-be-friends on paper</p> <p>Exercise 4: Implementing Might We Be Friends? in Java</p>	<p>TR.111.3.L.1: Branch execution flow of a simple program using if() controlled blocks</p> <p>TR.111.3.L.2: Implement several layers of decision logic using if-else controlled blocks</p> <p>TR.111.3.E.1: Create a graphical flow-chart of decision logic by designating unique shapes for: a) Flow beginnings and endings, b) general program events, and c) branching points (a.k.a. decision points or choices)</p> <p>TR.111.3.E.2: Given a peer's program and specified program behavior, check Java code for correctly implemented logic</p>	

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CIT-111	WED 12-FEB-2020	2		- Implementing Might We Be Friends? flow chart - Logic testing: verifying flow chart logic of peer programs		and write detailed documentnaton of any errors encountered TR.111.1.P.1: Clone a git repository from a remote system into a sensible location on a local system. TR.111.1.P.2: Create a local git repository, add files to the working directory, stage files for commit, commit files TR.111.1.P.2: Initialize an online repository with a readme.md	
CIT-111	MON 17-FEB-2020	1	4	Paper compiling practice & finish our Might We Be Friends? exercise	if() statements continued print Paper compiling practice Worksheet print Paper compiling practice - KEY	Compute the value of primitive type variables in simple programs by hand and check those answers using a compiler Use a Scanner object to gather input from a user and use those values to control if- statement selections	Attempt at least one exercise and one mini project from each of the two LIANG9 chapters assigned this week: Chapters 2 and 3
CIT-111	WED 19-FEB-2020	2		Finish up Might We Be Friends? and then start in on Module 4	 local_car_wash	Module 4: User Input	
CIT-111	MON 24-FEB-2020	1	5	Counting loop time & starting module 5	Looping fundamentals: the while() and for() blocks Module 5: While() and for() loops  LIANG9 Textbook: Chapter 4	java.core.if.3: Create variable requirements and flow charts to implement a given problem constraint	
CIT-111	WED 26-FEB-2020	2		Module 5 mini- projects: authentication etc.	Setting up github settings Setting up GitHub for your programs		
CIT-111	MON 2-MAR-2020	1	6	Scope		Java.Looping.1: Use while() structures to implement looping behavior based on simple boolean condition comparison	
CIT-111	WED 4-MAR-2020	2					

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CIT-111	MON 9-MARCH-2020	7	1	Looping review exercise	Looping, continued Module 5: While() and for() loops  LIANG9 Textbook: Chapter 4	7.L.1: 7.L.2:	
CIT-111	WED 11-MARCH-2020		2	Continue work on either 1) The quality control checker or 2) the math quiz program			
CIT-111	MON 16-MARCH-2020	8	1	First hour: Finish looping project Second hour: Introduction to methods	Methods Essentials: Empty calls and parameterized calls Module 1: Simple Methods and switch  LIANG9 Textbook: Chapter 5 - Methods	8.L.1: 8.L.2:	
CIT-111	WED 18-MARCH-2020		2	Method module 1 mini project: Mystery doors			
CIT-111	MON 23-MARCH-2020	9	1		Fancy Methods: Calling and writing methods with return types Module 2: Full-fledged Methods  LIANG9 Textbook: Chapter 5 - Methods	perm_data_setting	
CIT-111	WED 25-MARCH-2020		2	Method with return type / scope project worktime			
CIT-111	MON 30-MARCH-2020	10	1	Fundamentals project design	Fundamentals project Design and implement a novel project in Java, from scratch or building upon other students' past work Choice 1: Kennywood Ride		
CIT-111	WED 1-APR-2020		2	Fundamentals project implementation			

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CIT-111	MON 6-APR-2020		-		Tracker perm_data_setting Module 9: Methods and Class Structure		
CIT-111	WED 8-APR-2020		-		Choice 2: Design your own project cloud_circle Shared directory of student project code		
CIT-111	MON 13-APR-2020	11	1	Continue work on fundamentals project	11.L.1: 11.L.2:		
CIT-111	WED 15-APR-2020	11	2	Share fundamnetals project 30 minutes into session			
CIT-111	MON 20-APR-2020	12	1	Introduction to arrays and continuing objects	re-Discovery of the Java Object: Creating our first blueprint classes Donut.java and Vehicle.java perm_data_setting Module 1: Java Modeling in class DonutLand local_sec Explore photos of our Donut objects	12.L.1: 12.L.2:	
CIT-111	WED 22-APR-2020	12	2	Continued exploration of objects and arrays	local_car_wash Module 4: Car Modeling in Back To The Future  LIANG9 Textbook: Chapter 9 - Objects		
CIT-111	MON 27-APR-2020	13	1	Ease back in with arrays	Arrays and for() looping extension Module 1: Arrays local_sec Array Models Shared Google Doc  LIANG9 Textbook: Chapter 6 - Arrays	13.L.1: 13.L.2:	
CIT-111	WED 29-APR-2020	13	2	Start object project!	build widgets Object Project Guide Object Project Examples & Starter Seeds		
CIT-111	MON 4-MAY-2020	14	1	NO CLASS!	 LIANG9 Textbook: Chapter 10 - Thinking in Objects		

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CIT-111	WED 6-MAY-2020	2	<ul style="list-style-type: none"> * Bring fully-baked projects to share. * Same time and place as normal Wednesday class 	<p>Sharing our culminating projects</p>		