

These pages are intended to assist you in taking notes as you complete lessons, and to assist in organizing and tracking your progress. They are printable, so you can create as many as necessary.

Category	Topics	Content
<b>The LabVIEW Environment</b>	Getting Started	<ul style="list-style-type: none"> <li>File: New, Open</li> <li>Resources</li> <li>Example Finder</li> </ul>
	Status Toolbar	<ul style="list-style-type: none"> <li>Running the VI</li> <li>Toolbar buttons</li> <li>Online help tools</li> </ul>
	Menus	<ul style="list-style-type: none"> <li>Pull-down menus</li> <li>Shortcut menus</li> </ul>
	Help Options	<ul style="list-style-type: none"> <li>Context help</li> <li>Online reference</li> </ul>
	Control and Function Palettes	<ul style="list-style-type: none"> <li>Features, controls, indicators</li> <li>Accessing the palettes</li> <li>Customizing and using the palettes</li> </ul>
	Tools Palette	<ul style="list-style-type: none"> <li>Creating, modifying and debugging</li> <li>Features</li> </ul>
	"Hello World" Example	<ul style="list-style-type: none"> <li>Creating our first LabVIEW code</li> </ul>
<b>Exercise #1</b>		<ul style="list-style-type: none"> <li>Simple VI demonstrating dataflow programming and editing techniques</li> </ul>
<b>Creating and Wiring VIs</b>	Creating VIs	<ul style="list-style-type: none"> <li>Creating the front panel</li> <li>Using the block diagram</li> <li>Wiring controls and indicators</li> <li>Terminals</li> </ul>
	Running and Debugging VIs	<ul style="list-style-type: none"> <li>Run and Continuous Run</li> <li>Pause and Abort Features</li> <li>Execution Highlighting</li> <li>Probe and Breakpoint</li> <li>Context Help</li> </ul>
	Dataflow Programming	<ul style="list-style-type: none"> <li>Block diagram execution</li> <li>Nodes and parallelism</li> </ul>
	Editing Techniques	<ul style="list-style-type: none"> <li>Creating objects from Diagram Window</li> <li>Selecting objects</li> <li>Moving and Resizing Objects</li> <li>Deleting objects</li> <li>Undo and redo</li> <li>Free vs. Owned Labels</li> <li>Changing Fonts and Text Colors</li> <li>Copying Objects</li> <li>Wiring Techniques</li> <li>Wire selection techniques</li> </ul>
	Express VIs	<ul style="list-style-type: none"> <li>Wizard-based, built in functions.</li> <li>Problems With Express Vis</li> </ul>
<b>SubVIs</b>	SubVI Icon and Connector	<ul style="list-style-type: none"> <li>Creating the Icon</li> <li>Creating the Connector</li> <li>The connector pane</li> </ul>
	Using SubVIs	<ul style="list-style-type: none"> <li>Attaching the SubVI to a parent VI</li> </ul>
	Documenting SubVIs	<ul style="list-style-type: none"> <li>VI and Object Descriptions</li> <li>Using online help to display documentation</li> </ul>
	Create SubVI Menu Items	<ul style="list-style-type: none"> <li>Methods for creating SubVIs</li> </ul>
	Summary	
<b>Exercise #2</b>		<ul style="list-style-type: none"> <li>Outlines the techniques for debugging VI's and creating and using subVI's.</li> </ul>
<b>Loops</b>	While Loop	<ul style="list-style-type: none"> <li>What is a "while loop"?</li> <li>Properties and features</li> </ul>
	Shift Registers	<ul style="list-style-type: none"> <li>What is a "shift register"?</li> <li>Properties and features</li> <li>Initializing shift registers</li> </ul>
	For Loop	<ul style="list-style-type: none"> <li>What is a "for loop"?</li> <li>Properties and features</li> </ul>
<b>Arrays</b>	Loop Auto-Indexing	<ul style="list-style-type: none"> <li>Automatically create arrays using loop auto-indexing</li> <li>Automatically index through arrays</li> </ul>

	Array Controls and Indicators	<ul style="list-style-type: none"> <li>• Creating an array</li> </ul>
	Creating 2D Arrays	<ul style="list-style-type: none"> <li>• The "add dimension" function</li> <li>• Creating multidimensional arrays</li> <li>• The role of auto-indexing in multidimensional loops</li> </ul>
	Common Array Functions	<ul style="list-style-type: none"> <li>• Array Size</li> <li>• Initialize array</li> <li>• Build array</li> <li>• Index array</li> <li>• Array subset function</li> <li>• Insert into array</li> <li>• Replace array subset</li> </ul>
<b>Charts and Graphs</b>	Waveform Charts	<ul style="list-style-type: none"> <li>• Features</li> <li>• Customizing</li> </ul>
	Waveform Graphs	<ul style="list-style-type: none"> <li>• Features</li> <li>• Customizing</li> </ul>
	Multiple Plot Charts and Graphs	<ul style="list-style-type: none"> <li>• Properties</li> <li>• Charts with array input</li> <li>• Graphs with timing information</li> </ul>
	XY Graphs	<ul style="list-style-type: none"> <li>• Properties</li> <li>• When do you use XY graphs?</li> </ul>
	Chart and Graph Use Summary	
<b>Exercise #3</b>		<ul style="list-style-type: none"> <li>• Incorporating arrays and loops</li> </ul>
<b>Booleans</b>	Mechanical Action of Booleans	<ul style="list-style-type: none"> <li>• Switch and latch action</li> </ul>
	Boolean Arithmetic and Functions	<ul style="list-style-type: none"> <li>• Common functions and uses</li> </ul>
	Comparison functions	<ul style="list-style-type: none"> <li>• Common functions</li> <li>• Inputs and Outputs</li> </ul>
<b>Exercise #4</b>		<ul style="list-style-type: none"> <li>• Incorporating Boolean controls and indicators</li> </ul>
<b>Data Types</b>	Ring Data Type	<ul style="list-style-type: none"> <li>• Comparing enums and rings</li> <li>• Properties and features</li> <li>• Text Ring example</li> </ul>
	Polymorphism	<ul style="list-style-type: none"> <li>• What is "polymorphism"?</li> </ul>
	Numeric Conversion (Coersion)	<ul style="list-style-type: none"> <li>• Coersion dots</li> <li>• "Controlled" coercion and the numeric subpalette</li> </ul>
	Numeric Representation	<ul style="list-style-type: none"> <li>• What is "numeric representation"?</li> <li>• Icons, Wire colours.</li> </ul>
<b>Exercise #5</b>		<ul style="list-style-type: none"> <li>• Review exercise</li> </ul>
<b>Clusters</b>	Cluster Controls, Indicators, and Constants	<ul style="list-style-type: none"> <li>• What is a "cluster"?</li> <li>• Creating and using clusters</li> </ul>
	Cluster Functions	<ul style="list-style-type: none"> <li>• Bundle</li> <li>• Unbundle</li> <li>• Bundle by name</li> <li>• Unbundled by name</li> </ul>
	Use Clusters to Pass Data to SubVIs	<ul style="list-style-type: none"> <li>• How-to.</li> <li>• Benefits of this strategy.</li> </ul>
<b>Exercise #6</b>		<ul style="list-style-type: none"> <li>• Creating a VI with graphs and clusters</li> </ul>
<b>Structures</b>	Case Structures	<ul style="list-style-type: none"> <li>• Features, functions, and challenges</li> <li>• Creating and using case structures</li> <li>• Adding and modifying cases</li> </ul>
	Sequence Structures	<ul style="list-style-type: none"> <li>• Features, functions, and challenges</li> <li>• Types</li> <li>• Creating Sequence Structures</li> </ul>
	Disable Structures	<ul style="list-style-type: none"> <li>• Defining and using disable structures</li> <li>• "Disable" and "enable" states</li> </ul>
	Formula Node	<ul style="list-style-type: none"> <li>• What is a "formula node"?</li> <li>• Creating and using formula nodes</li> </ul>
	Property Node	<ul style="list-style-type: none"> <li>• What is a "property node"?</li> <li>• Creating and using property nodes</li> </ul>
<b>Exercise #7</b>		<ul style="list-style-type: none"> <li>• Enums, case structures, sequence structures</li> </ul>