

CIP CODE 10.0399
Occupational Profile: 27-1024.00 Graphic Designers



- 1 Certification: PrintED Advertising & Design
- 2 24 Dual Enrollment Credits available through Penn Highlands Community College
- 3 MOUS Certification in Microsoft Word
- 4 MOUS Certification in Microsoft Excel
- 5 MOUS Certification in Microsoft Powerpoint

1500 Fourth Avenue - Altoona, PA 16602 | keith.landis@gactc.edu | 814.505.1252

Multimedia and Web Design

Keith A. Landis

COMPETENCY	ENGLISH		MATH	SCIENCE	CAREER/WORK
	STANDARDS	ANCHORS	ANCHORS	STANDARDS	STANDARDS
1.1.1 Adobe Illustrator CS5 - Creating Illustrations 240 Hours					
1.1.A Getting Started with Illustrator 16 Creating a new Document, Exploring the Illustrator Window, Creating basic shapes, Applying fill and stroke colors to objects, Selecting, moving and aligning objects, transforming objects, and making direct selections.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.1.B Creating Text and Gradients 17 Creating and formatting text, Flow text into an object, position text on a path, create colors and gradients, apply colors and gradients to text, and adjust a gradient and create a drop shadow.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.1.C Drawing and Composing an Illustration 19 Draw straight lines, draw curved lines, draw elements of an illustration, apply attributes to objects, assemble an illustration, stroke objects for artistic effect, and use live trace and the live paint bucket tool.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.1.D Transforming and Distorting Objects 17 Transform objects, offset and outline paths, create compound paths, work with the pathfinder palette, and create clipping masks.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.1.E Working with Layers 17 Create and modify layers, manipulate layered artwork, work with layered artwork, and create a clipping set.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.1.F Working with Patterns and Brushes 17 Use the move command, create a pattern, design a repeating pattern, work with the brushes palette, and work with scatter brushes.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.1.G Working with Filters, Gradient Meshes, Envelopes, and Ble 17 Work with filters, work with gradient meshes, work with envelopes, and create blends.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.2.1.2.A Working with Transparency, Effects, and Graphic Styles 15 Use the transparency palette and the color picker, apply effects to objects, use the appearance palette, and work with graphic styles.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

1.2.B	Creating Graphs in Illustrator	15	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.2.C	Drawing with Symbols	15	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.2.D	Creating 3D Objects	15	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.2.E	Preparing a Document for Prepress and Printing	15	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.2.F	Preparing Graphics for the Web	15	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
1.2.: Multimedia- Microsoft PowerPoint 2011		60 Hours					
1.2.G	What Is PowerPoint	3.75	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.H	Basic Presentation Tools	3.75	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.I	Creating a Presentation from Scratch	3.75	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.J	Outlines, Hyperlinks, and HTML	33.75	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.K	Working With Text	3.75					

	Work with Fonts and Font Attributes, Use the AutoFit Feature, Apply Text Formatting to Placeholders, Work with Bullets and Numbered Paragraphs, Change Text Alignment, Create a PowerPoint Table, Change the Size and Position of Text Placeholders, Modify a Design Template's Text Placeholders	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.L	Working with PowerPoint Objects 3.75 Work with Basic Drawing Tools, Create Basic AutoShapes, Insert Clip Art, Adjust Clip Art Settings, Use WordArt for Special Effects, Work with Text Boxes, Rotate Text and Other Objects	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.M	Working with Lines, Fills, and Colors 3.75 Change the Line Color and Line Style for PowerPoint Objects, Change the Fill Color of Objects, Work with and Extended Color Palette, Work with Fill Patterns, Gradient Fills, and Textures, Use the Format Painter Tool to Copy Formatting, Work with Grayscale Settings for Better Printing	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.2.N	Manipulating PowerPoint Objects 3.75 Select Multiple Objects, Align, Flip, and Distribute Objects, Group and Ungroup Objects, Work with Layers of Objects, Apply Object Shadows and 3-D effects, Use the Duplicate Command, Edit Vector-Based Pictures	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
1.3.1	Adobe Photoshop CS5 - " Digital Darkroom " 240 Hours					
1.3.A	Looking at the Work Area 15 Getting familiar with the work area, Using the Toolbox, Using the Options Bar, Using the Palette Well, Using Tool Presets, Using Palettes, Using Context Menus, Viewing Images, Correcting Mistakes, About the History Palette, Duplicating Images, Using Rulers, Columns, the Measure Tool, Guides, and the Grid, Working with Extras, Displaying File and Image Information, Previewing an Image in a Browser, Managing Libraries, Customizing Keyboard Shortcuts, Setting Preferences, Using Plug-in Modules, Assigning Scratch Disks.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.B	Getting Images into Photoshop 15 Working with Bitmap Images and Vector Graphics, Understanding Image Size and Resolution, Changing Image Size and Resolution, Getting Images from Digital Cameras, Working with Camera Raw Image Files, Scanning Images, Creating New Images, Using the File Browser, Opening and Importing Images, Placing Files	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.C	Producing Consistent Color 15 Introduction to Color Management, Producing Consistent Color with a Desktop Printer, Producing Consistent Color When Sending Images to Press, Producing Consistent Color when Creating Images for the Web	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.D	Making Color and Tonal Adjustments 15 Before Making Color and Tonal Adjustments, Basic Steps for Correcting Images, Using a Histogram to View the Tonal Range of an Image	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.E	Selecting 15					

	About Selections, Adjusting Pixel Selections, Softening the Edges of a Selection, Moving, Copying, and Posting Selections and Layers, Using the Snap Command, Saving and Loading Selections, Deleting Selections, Removing Fringe Pixels From a Selection, Using the Extract Filter, About Masks, Using Quick Mask Mode to Make Selections, Storing Masks in Alpha Channels		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.F	Transforming and Retouching	15					
	Changing the Size of the Work Canvas, Rotating and Flipping Entire Images, Cropping Images, Transforming Objects, Retouching and Repairing Images, Using the Liquefy Filter, Creating Panoramic Images		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3 : M11.C.2	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.G	Drawing	15					
	About Shapes and Paths, Using the Shape Tools, Editing Shapes, Using the Pen Tools, Working with Paths		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.3.H	Painting	15					
	Using the Painting Tools, Using the Art History Brush Tool, Working with Brushes, Setting Options for Painting and Editing Tools, Using the Gradient Tool, Using the Paint Bucket Tool, Filling and Stroking Selections and Layers, Creating and Managing Patterns, Choosing Foreground and Background Colors		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.1.1.4.A	Using Channels	15					
	About Channels, Using the Channels Palette, Managing Channels		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.B	Using Layers						
	About Layers, Working with Layers, Using the Layers Palette, Creating Layers and Layer Sets, Working with Layered Images, Distributing Layers, Managing Layers, Setting Opacity and Blending Options, Using Layer Effects and Styles, Using Adjustment Layers and Fill Layers, Working with Layer Comps, Masking Layers, Creating Clipping Masks		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.C	Applying Filters for Special Effects	15					
	Using Filters, Using the Filter Gallery, Applying Filters Individually, Blending Filter Effects, Defining Undistorted Areas, Improving Filter Performance		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.D	Designing Web Pages	15					
	Designing Web Pages with Photoshop, Creating and Viewing Slices, Selecting and Modifying Slices, Working with Tables, Setting HTML Output Options, Creating Web Photo Galleries		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.E	Creating Complex Web Graphics	15					
	About Rollovers and States, Working with Layers in Rollovers and Animations, Using the Web Content Palette, Creating and Editing Rollovers, Animations		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.F	Preparing Graphics for the Web	15					
	About Optimization, Optimizing Images		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.G	Saving and Exporting Images	15					

	Saving Images, Exporting Layers as Files, Exporting Images in Zoom View Format, Adding File Information, Adding Digital Copyright Information, Setting Preferences for Saving Files, Creating Multiple Image Layouts, Creating a PDF Presentation, Placing Photoshop Images in Other Applications	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
1.4.H	Printing 15 About Printing, Printing Images to a Desktop Printer	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	13.4.5C; 13.4.11A
2.1.1	Digital Photography	5 Hours				
2.1.A	Photography Competitions 5 Photo Techniques Demonstrated Through The Use of Monthly Photography Competitions.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3		13.2.11E
2.2.1	Adobe InDesign CS5 - " Graphic Design "	(120 Hrs)				
2.2.A	Introduction 15 About InDesign, Setting Your Expectations	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.B	Page Layout 15 Grids, Guides, Document Presets, Layout Options, Creating and Applying Masters	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3 : M11.B.2	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.C	Layers 15 Create and Manipulate Layers, Arrange Objects and Layers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.D	Working With Content 15 Text Layout and Style Options, Table Techniques, Using Links	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.E	Creating Books 15 Book Files, Table of Contents, Indexes	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.F	PDF Documents 15 Working with PDF Documents, Interactive Elements	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.G	XML 15 Exporting to XML, Importing XML	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.2.H	Print Options 15 Basic Print Options, Advanced Print Options	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.2.10B; 3.1.10B; 3.7.10B	13.4.5C; 13.4.11A
2.3.1	Adobe Flash CS5 - Animation	90 Hours				
2.3.A	Introduction to Flash 15 What is Flash? Starting Flash. Understanding the Flash Workspace. Working with Panels. Using the Property Inspector. Getting Help. Playing and Testing a Flash Movie. Saving a Flash Document. Exiting Flash.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B	
2.3.B	Creating a Flash Movie 15					

	Planning a Movie. Starting with a Template. Setting Movie Properties. Working with Elements and Properties. Working with Editing Tools. Understanding Layers. Using the History Panel.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B	
2.3.C	Using Animation Understanding Animation. Introduction to Frames. Morphing with Shape Tweens. Moving Objects with Motion Tweens. Animating with Motion Paths. Using Animated Masks. Adding Timeline Effects. Animating Frame-by-Frame.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B	
2.3.D	Working with Media Inserting Scenes. Understanding Symbols and Instances. Working with the Library Panel. Using Graphics. Creating a Movie Clip. Adding Audio. Importing Video.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B	
2.3.E	Adding Interactivity Introduction to Actions and ActionScript. Creating a Button. Adding Button Sounds and Actions. Building Forms. Introduction to Components. Working with Components.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B	
2.3.F	Publishing Movies Preparing to Publish. Using Spell Check. Working with Find and Replace. Printing Your Movie. Understanding Publishing Options. Optimizing Your Movie. Using a Preloader. Adding a Movie to a Web Page.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B	
2.4.1	Video 101 - " Video Production Basics "					10 Hours
2.4.A	The Camera Lenses, Functions of a Lens, Depth of Field, Using Depth of Field, The Pick-Up System, The Color Control System, Recording Controls	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.B	A Look at Videotape Recorder The Essential Parts of a VCR, VCR Inputs and Outputs	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.C	Fundamental Considerations for Productions The Selective and Persuasive Camera, A Steady Camera	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.D	Composition Rule of Thirds, Composition Balance, Balance with Size, Balance with Color, Balance with Subject Positioning, Camera Angles, Framing, Framing People, Common Sense Framing, Frame Within a Frame, Leading Lines, Backgrounds, People Spacing, The Level of Action, Nose Room, Composition and Intestinal Fortitude	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.E	Types of Camera Shots and Camera Movements Wide Shots, Medium Shots, Close-Up Shots, Extreme Close-Ups, Panning, Tilting, Trucking, Dollying, Zooming, Making Camera Movements	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.F	Creating Shot Sequences					1

	Shot Sequences Defined, Creating a Shot Sequence, Types of Shots in a Basic Sequence, Applying Shots in a Basic Shot Sequence, Image Sizes and Camera Angles in Shooting a Basic Sequence, Cutting on the Action, Entering and Exiting a Scene Clearly, Some Comments	1	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.G	The 180 Degree Rule Defined, In Use, Crossing the Line, Moving the Line, A Problem Solver	1	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.H	Camera Techniques Defined, Camera Transitions, Simple Creative Effects, Non-electronic Effects	1	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.I	Recording Sound Importance of Sound, Audio's Functions, Microphones, Selecting the Right Microphone, Listening to What You Record, In Camera Audio Editing	1	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.J	Lighting The Importance of Light, Light for Video, Working with Interior Lighting, Bounce Lights, Onboard Lights	0.5	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.K	Editing Defined, Reasons for Editing, Editing Systems, The Editing Process, Shooting for Editing, Off Line Editing, On Line Editing, Audio Dubbing, Graphics, Sophisticated Editing	0.5	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
2.4.L	After The Basics What Next, A 24 Hour Teacher, Style	0.5	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.1.1	Web Design Fundamentals - " Web Design "	60 Hours					
3.1.A	Overview Welcome to the Internet, The Web Environment, Browsers, Secrets of Great Web Pages, Cool Tools for Web Work	10	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.1.B	Planning the Site Determining Your Message, Identifying Your Audience, Developing the Content, Laying Out the Site, Linking the Pages, Linking to Other Sites,, Finalizing the Design	10	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.1.C	Creating a Page Creating a Web Page, Why All Web Pages Aren't Created Equal, Essential Web Pages, Web Page Elements, Page Templates, Advanced Design Features	10	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.1.D	Creating Text for the Web Writing Without Rules, Learning the Rules, Check Spelling and Grammar, Arranging Text on a Page, Selecting Fonts, Advanced Typography, Text as Graphics	10	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3 : M11.C.2	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.1.E	Managing Graphics Color on the Web, Selecting a Color Scheme, Using Existing Graphic Images, Designing Images for the Web, Digital File Formats, Advanced Graphic Possibilities	10	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.1.F	Going Live!	10					

	Selecting a Host, Registering Your Domain Name, Site Structure and Management, Testing and Fixing Your Site, Getting Your Files to the Host Site, Editing and Updating Your Pages, Registering with Search Engines, Marketing Your Site	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10A; 3.7.10B	13.2.11E
3.2.1 HTML Fundamentals - " Web Design "	60 Hours					
3.2.A	Introducing HTML What is HTML, What is a Web Browser, What are Versions of HTML, What Can You Do with HTML, HTML Development Environments, Using a WYSIWYG Editor, Using an HTML Editor, Writing Code with a Text Editor, Publishing Documents	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.2.B	Creating a Basic HTML Document Review of HTML Elements, Rules of Syntax, Making your Code Readable, Making your Code XHTML Compliant, Building a Document, Using Colors, Adding Color to your Page, Using Headings, Using Paragraphs, Using Block quotes, Using Entities, Aligning Block-Level Elements	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.2.C	Formatting Text Inserting Spaces and Line Breaks, Displaying Preformatted Text, Formatting with Inline Elements, Controlling Fonts, Introducing List Elements, Creating Unordered Lists, Creating Ordered Lists, Creating Definition Lists, Nesting Lists, Indenting Text with Tags	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.2.D	Creating Tables What is an HTML Table, Building a Table, Using the Border Attribute, Cell Padding and Cell Spacing, Controlling Table and Cell Width, Aligning a Table on the Page, Aligning Tables and Text, Aligning Table Data, Spanning Columns and Rows, Nesting Tables, Adding Color to Tables, Using Tables as a Design Tool	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.2.E	Using Hyperlinks and Frames Creating a Hyperlink, Understanding and Using URLs, Linking to a Web Document, Linking to a Local Document, Linking to Anchors, Opening a New Browser Window, Creating a Frameset, Adding the Frame Elements, Creating the Frames, Using the No frames Element, Using Inline Frames	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.2.F	Adding Graphics Graphic File Formats, Optimizing Image and File Size, Inserting Inline Images, Aligning and Formatting Images, Using Images to Anchor Links, Creating a Look-and-Feel, Sizing and Scaling Images, Using Transparent Images, Making an Image Fade In, Finding and Creating Graphics, Using GIF Animation	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.3.1 HTML Advanced - " Web Design "	40 Hours					
3.3.A	Advanced HTML Techniques What are Image maps, Creating an Image map, What are Forms, Creating a Login Form, Using Mailto, Adding Fields, What is Multimedia, Adding Audio, Embedding Flash Animation	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C	10
3.3.B	Using Style Sheets					10

	What are Style Sheets, Using External Style Sheets, Using Embedded Style Sheets, Using Inline Styles, Using Style Sheet Syntax, Applying Backgrounds, Controlling Page Layout, Formatting Text and Fonts, Applying the Cascading Model	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.3.C	Introducing JavaScript 10 What is JavaScript, Writing JavaScript, Responding to User Events, Calling a Function, Working with Dates, Working with Windows, Creating Rollovers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.3.D	Advanced Techniques 10 Positioning with Style Sheets, Using the Position Property, Creating Columns, Adding a Pull Quote, Creating Layers with Z-axis, Creating Layers with Divisions, Controlling Layers with JavaScript, Creating Animation with Layers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C

3.3.: Developing Effective Listening and Speaking Skills in the Workplace

Addresses the importance of developing effective listening and speaking skills in the workplace. Introduces lessons on effective listening and covers nonverbal communication, the power of language, and barriers to effective listening. Upon completion of these lessons, students will be able to: 1. receive, attend to, interpret, and respond to verbal messages and other cues such as body language in ways that are appropriate. 2. prepare for an oral presentation. (gathering and organizing information and material, preparing questions and answers, etc.) 3. organize ideas and communicate oral messages appropriate to listeners and situations. 4. use verbal language and other cues such as body language in ways that are appropriate in style, tone, and level of complexity to the audience and occasion. 5. identify and develop strategies to overcome barriers to effective listening.

78 Hours

3.3.E	Listening and Speaking in the Workplace 2.6 Upon completing this lesson, students will be able to: 1. explain the importance of effective listening and speaking skills in the workplace and, 2. cite examples of how listening and speaking are used at work.	1.6.11.A, B, D			13.1.11D; 13.2.11A; 13.2.11E
3.3.F	Communication is More than Words 2.6 Upon completion of this lesson, students will be able to: 1. define communication 2. Describe the role of communication in human interactions and the frustration of not being able to make oneself understood. 3. Discuss how a literary excerpt dramatizes the fundamental role of communication in human relations.	1.1.11.C : 1.6.11.D : 1.2.11.A			13.1.11D; 13.2.11A; 13.2.11E
3.3.G	Nonverbal Communication 2.6 Upon completing this lesson, students will be able to: 1. Define nonverbal communication, 2. Analyze nonverbal cues, 3. Use nonverbal cues to communicate.	1.1.11.C : 1.1.11.G : 1.1.11.H : 1.6.11.E			13.1.11D; 13.2.11A; 13.2.11E
3.3.H	Effective Listening 2.6 Upon completion of this lesson, students will be able to: 1. Describe the elements of the HEAR model for effective listening. 2. Use the strategies of the HEAR model to improve their listening skills.	1.1.11.B : 1.1.11.D : 1.2.11.C			13.1.11D; 13.2.11A; 13.2.11E
3.3.I	Barriers to Effective Listening 2.6 Upon completing this lessons, students will be able to: 1. Discuss the importance of good listening skills in the workplace. 2. Recognize that listening skills can and should be improved. 3. Identify barriers to good listening. 4. Suggest ways to overcome listening barriers.	1.6.11.A : 1.6.11.B : 1.6.11.E			13.1.11D; 13.2.11A; 13.2.11E
3.3.J	A Problem Involving Listening 2.6				

	Upon completion of this lesson, students will be able to: 1. Analyze complex problems. 2. List and discuss options for dealing with confidential information. 3. Discuss, giving examples, the kinds of problems that confidentiality can pose.	1.2.11.A : 1.2.11.B : 1.6.11.D : 1.6.11.E		M.11.A.31		13.1.11D; 13.2.11A; 13.2.11E
3.3.K	The Power of Language 2.6 Upon completion of this lesson, students will be able to: 1. Discuss the positive and negative effects of using language. 2. Describe the importance of anticipating the effects of word choice and use on others. 3. Recognize common speech traps to avoid.	1.7.11.B				13.1.11D; 13.2.11A; 13.2.11E
3.3.L	Words Can Offend 2.6 Upon completing this lesson, students will be able to: 1. Define offensive speech and describe its effect on communication and interpersonal relations in the workplace. 2. Discuss, using a story as an example, the failure of communication when one person is unaware that his or her words are offensive. 3. analyze the effect of environments and attitudes on oral communication	1.7.11.A : 1.7.11. B : 1.6.11.E				13.1.11D; 13.2.11A; 13.2.11E
3.3.M	Searching for a Job 2.6 Upon completion of this lesson, students will be able to: 1. Describe two powerful job-seeking strategies. 2. Develop a plan for using these strategies. 3. Create a phone script for contacting potential employers.	1.4.11A : 1.4.11.B : 1.4.11.C : 1.6.11.C				13.1.11D; 13.2.11A; 13.2.11E
3.3.N	Preparing for a Job Interview 2.6 Upon completing this lesson, students will be able to: 1. List questions that are typically asked in a job interview. 2. Gather information about positions. 3. Organize information around anticipated interview questions. 4. prepare effective answers to questions frequently asked in job interviews.	1.2.11.A : 1.4.11.C : 1.6.11.E				13.1.11D; 13.2.11A; 13.2.11E
3.3.O	What to Do at a Job Interview 2.6 Upon completion of this lesson, students will be able to: 1. Describe behavior that would be appropriate during a job interview. 2. Develop a personal plan for conducting themselves before, during, and after a job interview.	1.6.11.E				13.1.11D; 13.2.11A; 13.2.11E
3.3.P	Practicing a Job Interview 2.6 Upon completion of this lesson, students will be able to: 1. Use listening and speaking skills to conduct a job interview. 2. Write an effective follow-up letter after an interview.	1.5.11.A, B, C : 1.6.11.E				13.1.11D; 13.2.11A; 13.2.11E
3.4.1 Adobe Dreamweaver CS5 - " Web Design "						
		120 Hours				
3.4.A	Introduction to Dreamweaver 17 What is Dreamweaver, Using the Dreamweaver Work Area, Working with the Document Window, Setting Your Preferences, Understanding the Site Creation Process, Setting Up the Site Structure, Defining the Site, Understanding HTML	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3		3.1.10A; 3.2.10B; 3.7.10C
3.4.B	Creating HTML Documents 17 Creating a New Document, Defining Page Properties, Working with Layers, Adding Text, Importing a Word HTML Document, Creating a Template, Using a Template	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3		3.1.10A; 3.2.10B; 3.7.10C
3.4.C	Working with Images 17					

	Understanding Objects, Exploring the Assets Panel, Inserting Images, Inserting Rollover Images, Previewing a Document, Using Layers to Create Interactive Images, Attaching Behaviors to Layers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.4.D	Tables, Forms and Multimedia 17 Creating a Table, Inserting Elements into a Table, Creating a Search Form, Inserting Form Controls, Inserting Multimedia Objects, Adding a Flash Button	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.4.E	Adding Links 17 Understanding Links, Creating a Text Link, Creating an Image Link, Creating an Image Map, Inserting a Navigation Bar, Adding a Jump Menu, Working with the Site Map	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.4.F	Formatting Documents 17 Understanding Formatting Options, Applying Individual Formats, Setting a Color Scheme, Using Cascading Style Sheets, Formatting Tables, Defining Frames, Using Frames	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.4.G	Publishing and Managing Your Site 18 Generating Reports, Checking Links, Checking Target Browsers, Publishing to a Remote Site, Updating Files, Using Library Items, Synchronizing Files	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.2.10B; 3.7.10C
3.5.1 Multimedia - Microsoft Word 2011 115 Hours					
3.5.A	Create a Document 45 Identify Parts of the Word Screen; Use the Ribbon, Tabs, and Groups; Use ScreenTips and Different Views; Customize the Quick Access Toolbar; Create Folders and Save Documents; Insert Text into a Document; Wrap and Select Text; Correct Spelling Errors; Delete Text; Undo and Redo Actions; Open and Close a Document; Combine and Split Paragraphs; Use the Zoom Options; Use the Help Feature; Preview and Print a Document	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.5.B	Format Content 45 Set Margins and Tab Stops; Modify Font Size, Style, and Color; Apply and Clear Styles from Text; Change Font case and Use Format Painter; Apply Character Effects and Highlighting; Change Line and Paragraph Spacing and Alignment; Create and Customize a Numbered List and Bulleted List; Apply and Clear Styles from Lists; Modify and Remove Tabs Create and Outline Numbered List; Set Indents Using the Ruler; Add Borders and Shading to Text; Modify Character Spacing and Scale; Apply Quick Styles to a Document; Change the Style Set and Color Themes	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.5.C	Using Word Tools 3 Create a Business Letter; Set Margins in Print Layout View; Cut and Paste Text; Use Drag-and-Drop to Move Text; Insert Symbols and Special Characters; Use the Thesaurus; Spell Check and Grammar Check a Document; Research Information; Print an Envelope; Use the Find and Go To Commands; Find and Replace Text; Customize and Use Auto Correct; Use the Office Clipboard; Use a Template to Create a Business Letter; Create and Insert Building Blocks; Sort and Edit Building Blocks	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.5.D	Manage Lengthy Documents 3.1				

	Use Reveal Formatting to Format an Academic Report; Create the First Page of a Report; Insert and Modify Page Numbers; Create and Modify a Header and Footer; Navigate a Document; Insert and Delete Page Breaks; Use Word Count; Insert and Format a Citation, Endnote, and Footnote; Create and Format a Table of Contents; Format Different Sections in a Document; Format long Quotations; Select Reference Styles and Add a Citation Source; Insert a Bibliography; Update a Table of Contents; Review and Modify Document Properties; Split Windows and Arrange Panes; Use Outline View; Arrange Open Windows	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.5.E	Columns, Tables, and Graphics 13.8 Create Columns; Insert Column Breaks; Format Columns and Column Text; Insert a Table; Key Text in a Table; Insert and Delete Columns and Rows in a Table; Format a Table; Modify Cell Formats; Apply and Clear Styles from Tables; Insert and Modify Clip Art; Insert Position and Size a Text Box; Create and Modify SmartArt; Insert, Position, and Size a Shape; Use WordArt; Create and Modify a Chart; Convert Text to Tables and Tables to Text	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.5.F	Collaborate with Others 63 Insert Hyperlink into a Word Document; Send a Document for Review via Email; Use Track Changes; Insert, View, and Edit Comments; Compare and Merge Documents; Locate and Review Combined Changes in a Document; Accept and Reject Changes; Insert and Edit a Hyperlink to a Web Page; Preview a Web Page for Publication; Rename a Folder; Save a Document as a Web Page; Change Page Orientation and Paper Size; Prepare and Perform a Mail Merge; Choose Printing Options; Create and Print Labels; Convert Documents to Different Formats; Create Personal Letterhead. Live Work/Labs	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.6.1	Multimedia - Microsoft Excel 2011 110 Hours				
3.6.A	Excel Basics 3.1 Identify Parts of the Excel Screen; Use Tabs, Groups, and Buttons; Close and Create a Workbook; Scroll and Move Through Worksheets; Create a new Folder; Name and Save a Workbook; Insert and View Cell Contents; Change the View of a Screen; Use Undo and Redo; Open and Existing Workbook; Calculate a Sum; Preview and Print a Worksheet; Use the Help Feature	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.6.B	Create Data and Content 3.2 Enter Cell Contents; Use AutoSum, Average, MIN, and MAX; Edit Cell Contents; Find and Replace Cell Contents; Move Selected Cells; Cut, Copy, and Paste Cells; Insert and Delete Rows and Columns; Insert and Delete Cells; Use the Fill Handle; Insert and Edit Hyperlinks	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B
3.6.C	Format Data and Content 3.6				

	Change Font, Font Size, and Style; Apply Borders and Copy Cell Contents; Convert Text to Columns; Apply Table Styles; Modify Tables to Show New Data; Change Font Color; Apply Cell Styles; Change Column and Row Width and Height; Hide and Unhide Columns and Rows; Change Horizontal and Vertical Alignment; Center Across Selection; Show/Hide Gridlines and Headings; Rename a Worksheet and Change the Tab Color; Choose a Background; Hide/Unhide Worksheets; Insert, Move, and Size SmartArt Graphics	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
3.6.D	Analyze Data	3.6				
	Use AutoFilter; Sort Data; Key a Basic Formula; Edit Formulas; Use Functions to Create Formulas; Copy and Move Formulas; Enter a Range by Dragging; Use Relative and Absolute References; Use Mixed References; Create Diagrams and Charts; Modify and Position Chart Elements; Change Chart Type; Add a Chart to a New Sheet; Use the COUNT and COUNTA Functions; Use the NOW and PMT Functions; Use the IF Function	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
3.6.E	Manage Workbooks	98				
	Create a Workbook From a Template; Enter Data Into a Template; Insert and Delete Worksheets; Rearrange Worksheets; Split, Freeze, and Unfreeze Workbooks; Hide, Unhide, and Arrange Workbooks, Save and Publish Worksheets as Web Pages; Use Print Preview Features; Change Page Orientation; Set the Print Area; Create Headers and Footers; Preview and Modify Page Breaks; Setup Options for Printing; Print Selection or Entire Workbook; Rename Folders; Convert Files to Different Formats. Livework/Labs	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
3.7.1 Multimedia Presentations		60 Hours				
3.7.A	Create Marketing Materials	60				
	Working with local business/industry. The student will prepare marketing materials such as brochures, flyers, newsletters, newspaper ads, billboards, and banners. Other content could include Adobe Flash and other similar web content. Students will work independantly with business owners along with the respective media to finalize these marketing purchases.	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.7.10B	
4.1.1 iOS Application Development - Creating Apps for iPhone/iPad		24 Hrs				
4.1.A	Preparing Your System and iDevice for Development	1				
	The iOS hardware limitations you face	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Where to get the tools you need to develop for iOS devices	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to join the iOS Developer Program	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The need for (and use of) provisioning profiles	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

	What to expect during the first few hours of this book		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.2.A	Introduction to xCode and the iOS Simulator	1					
	How to create new projects in Xcode		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Code editing and navigation features		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Where to add classes and resources to a project		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to modify project properties		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Compiling for iOS devices and the iOS Simulator		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to interpret error messages		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Features and limitations of the iOS Simulator		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.3.A	Discovering Objective-C: The Language of Apple Platforms	1					
	How Objective-C will be used in your projects		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The basics of object-oriented programming		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Simple Objective-C syntax		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Common data types		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How ARC helps with memory management		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.4.A	Inside Cocoa Touch	1					
	What Cocoa Touch is and what makes it unique		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The technology layers that make up the iOS platform		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	A basic iOS application life cycle		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

	Classes and development techniques you'll be using throughout this book		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to find help using the Apple developer documentation		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.5.A	Exploring Xcode's Interface Builder	1					
	Where Xcode's Interface Builder fits in the development process		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The role of storyboards and scenes		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to build a user interface using the Object Library		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Common attributes that can be used to customize interface elements		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways to make your interface accessible to the visually impaired		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to link interfaces to code with outlets and actions		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.6.A	Model-View-Controller Application Design	1					
	What the Model-View-Controller design pattern means		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways in which Xcode Implements MVC		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Design of a basic view		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Implementation of a corresponding view controller		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.7.A	Working with Text, Keyboards, and Buttons	1					
	How to use text fields		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Input and output in scrollable text views		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to enable data detectors		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	A way to spruce up the standard iOS buttons		1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.8.A	Handling Images, Animation, Sliders, and Steppers	1					

	The use of sliders and steppers for user input	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Configuring and manipulating slider and stepper input ranges	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to add image views to your projects	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways of creating and controlling simple animations	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.9.A	Using Advanced Interface Objects and Views	1				
	How to use segmented controls (a.k.a. button bars)	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways of inputting Boolean values via switches	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to include web content within your application	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The use of scrolling views to overcome screen limitations	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.10.A	Getting the User's Attention	1				
	Different types of user notifications	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to create Alert Views	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Methods for collecting input from alerts	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to use Action Sheets to present options	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to implement short sounds and vibrations	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.11.A	Implementing Multiple Scenes and Popovers	1				
	How to create multiple scenes in the storyboard	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The use of segues to transition between scenes	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to transfer data between scenes	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

	How to present and use popovers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.12.A	Making Choices with Toolbars and Pickers	1				
	The use of toolbars and pickers in iOS application interfaces	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to implement the date picker object	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways to customize the display of a picker view	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The relationship between pickers, toolbars, and popovers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to implement a single content class for modal views and popovers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.13.A	Advanced Storyboards Using Navigation & Tab Bar Contro	1				
	The purpose of navigation and tab bar controllers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to create navigation controller-based scenes with the storyboard	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to build tab bar applications using the iOS tab bar template	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	A way to share data between scenes using the navigation and tab bar controllers	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.14.A	Navigating Information Using Table Views and Split View (1				
	The types of table views	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to implement a simple table view and controller	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways to add more structure and impact to a table with sections and cell images	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The purpose of split view controllers on the iPad	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to use a Master-Detail Application template	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.15.A	Reading and Writing Application Data	1				
	Good design principles for using application preferences	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

	How to store application preferences and read them later	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to expose your application's preferences to the Settings application	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to store data from your applications	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.16.A	Building Rotatable and Resizable User Interfaces	1				
	How to make an application "rotation aware"	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways of laying out an interface to enable automatic rotation	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Methods of tweaking interface elements' frames to fine-tune a layout	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to swap views for landscape and portrait viewing	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.17.A	Using Advanced Touches and Gestures	1				
	The multitouch gesture-recognition architecture	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to detect taps	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to detect swipes	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to detect pinches	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to detect rotations	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to use the built-in shake gesture	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.18.A	Sensing Orientation and Motion	1				
	What Core Motion is	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to determine a device's orientation	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to measure tilt and acceleration	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

	How to measure rotation	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.19.A	Working with Rich Media	1				
	How to play full-motion video from local or remote (streaming) files	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways of recording and playing back audio files on your iPhone	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to access the built-in music library from within your applications	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to display and access images from the built-in photo library or camera	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	The use of Core image filters to easily manipulate images	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Methods of retrieving and displaying information about currently playing media items	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.20.A	Interacting with Other Applications	1				
	Compose tweets with Twitter	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to create and send email with the Mail application	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to access the Address Book	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to display and manipulate map views	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to add simple map annotations	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.21.A	Implementing Location Services	1				
	The available iOS location-sensing hardware	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to read and display location information	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Detecting orientation with the compass	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.22.A	Building Background-Aware Applications	1				
	How iOS supports background tasks	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E

	What types of background tasks are supported	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to disable backgrounding	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to suspend applications	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to execute code in the background	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.23.A	Building Universal Applications	1				
	What makes a universal application "universal"	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to use the universal application template	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Ways of designing universal applications	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	How to detect the device an application is running on	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Tools for migrating to a universal architecture	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
4.24.A	Application Tracing and Debugging	1				
	Using the NSLog function	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Navigating the Xcode Debugger	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Setting breakpoints and watchpoints	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Modifying variable values on-the-fly	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E
	Tracing iOS program execution	1.1.11B,D,E,G,H : 1.2.11B : 1.4.11.B : 1.6.11.A,D,E,F : 1.8.11.B	R11.A.2: R11.B.1 R11.B.3	M5.B.2.1.1 : M8.A.3.3.1 : M11.A.2.1.3	3.1.10A; 3.7.10C; 3.7.10A; 3.2.10B; 3.1.10B	13.2.11E