ArcGIS Pro-cedures

NUMBER	OPERATION	Pane, Ribbon, Table, etc.	PROCEDURE
1	Create a new Project	When you open ArcGIS Pro: Or if ArcGIS Pro is already open:	Select a project template (Map, Catalog, Global_Scene, or Local_Scene) > name the project and select the correct workspace *For this class, we will always use the Map template* Select the Project tab > New > select a project template (Map, Catalog, Global_Scene, or Local_Scene) > name the project and select the correct workspace
2	Create a new geodatabase	Catalog Pane	RC on folder > New > File Geodatabase
3	Create a new feature dataset	Catalog Pane > Databases	1. RC on geodatabase > New > Feature Dataset 2. Give a name to the feature dataset 3. To set the Spatial Reference > click on the globe next to the *Coordinate System* box > Select the correct projection and coordinate system for your project 4. Run
4	Add a new map	Insert Tab:	New Map
5	Import tables into a geodatabase	Catalog Pane > Databases	RC on geodatabase > Import > Table/s This will open a geoprocessing tool. Navigate to and select the table/s you want to import > Run
6	Import shapefiles, coverages, or feature classes in another GDB into a geodatabase or feature dataset	Catalog Pane > Databases	RC on the feature dataset > Import > Feature Class or Feature Classes Navigate to and select the spatial data you want to import > Make sure you are putting it/them into the correct geodatabase > Run
7	Name a Map	Contents Pane	RC on map name at the top of the Contents pane > Properties > General > Name
8	Add Folder Connection	Catalog Pane > Folders	Right click on Folders > Add Folder Connection 1. Navigate to the folder you want to access 2. Select the folder and click *OK*
9	Opening a stand-alone table	Contents Pane	RC on table > Open
10	Opening a layer table	Contents Pane	RC on layer > Attribute Table
11	Access Georeferencing Tools	Imagery Tab	In the Contents pane, select the image you want to georeference; then click Georeference on the Imagery tab. This should open the Georeference Tab From the Georeference Tab, you can access the following tools:

			1. Fit to Display 2. Add Control Points 3. Control Point Table 4. Export Control Points 5. Transformation Methods 6. Save georeferencing 7. Close Georeference 8. Etc.
12	Determine the following for a feature class: 1. Geographic Extents 2. Geometry Type 3. Spatial Reference 4. Domain, Resolution, and Tolerance	Contents Pane	RC on the feature class > Properties > Source 1. Extents 2. Data Source > Geometry Type 3. Spatial Reference 4. Domain, Resolution and Tolerance
13	Obtain Attribute Information	Contents Pane	Highlight the feature class or table – this activates the Feature Label ribbon > Data > Fields or with the table open > Field View (upper right corner of the table)
14	Attribute Statistics	ArcMap	From the table > RC on the attribute > Statistics
15	Sort Attributes	Attribute Table	From the table > RC on the attribute > Ascending or Descending
16	Select by Attributes	Map Tab	Select by Attributes > complete the layer name, selection type (usually *New Selection)field,* and New Expression components > Run
17	Save ArcGIS Pro Project	Project Tab	Save or Save As or Save Project button near the top left corner of the AGP window
18	Create an empty feature class	Catalog Pane	RC on feature dataset (or the GDB > New > Feature class • *Provide a location (if necessary)* • *Provide a name* • *Select the geometry type (point, polyline, polygon; etc.)* • *If necessary – Identify Template Feature Class* • *If necessary – Provide* M(easurement) type • If necessary – indicate Z values, of any • If the FC is outside a feature dataset – set projection coordinate system
19	Add data to a map	Map Tab: Layer Group	Add Data

		Catalog Pane: Databases Catalog Pane: Databases Non-ArcGIS files	RC feature dataset, feature class, or Table > Add to … Drag features etc. onto map canvas RC on file and Add to, or drag file. onto map canvas
20	Clear Selected Features	Map tab In a table	Click on the *Clear* button Click on the *Clear* button
21	Digitize features	Edit Tab	Create > opens the Create Features Pane > Select the feature class for which you want to create a new feature > Click on the map page to begin creating a feature To **save your edits**, click the save button on the Edit Tab Points ➢ click once Lines ➢ Freehand digitizing o Select the Freehand icon o One click to start the line, trace the line, click once to end it. ➢ Manual digitizing o Select the Line tool, click once to start the line o as you trace the line, click each time you want to add a vertex o Click twice to end the line
22	Open an existing ArcGIS Pro project	from ArcGIS Pro From Windows File explorer	Click on the *Open Existing Project* button in the upper left corner of ArcGIS Pro > Navigate to the project you want to open > Locate the APRX file and double-click to open the project. Navigate to the folder containing the project you want to open > double-click to open the project.
23	Add an attribute/field to an open table	Table window	At the top of the table click on the Add Field button > Add field > fill in the parameters Once you have added the parameters, click the Save Icon in the Fields tab
24	Typing attribute values into a table	An Open Table	Click in the cell containing the attribute you want to update and start typing.
25	Label features based on attributes	Content Pane	Click on the feature class you want to label > select the Labeling Tab > 1. Choose the Field you want to use to supply the labels 2. Click the Label button

			3. Use the other buttons and dropdowns on the *Labeling Tab* to format the text and determine placement and other options
26	Set image or feature transparency	Content Pane	RC the raster or feature class you are interested in > select the Appearance Tab > locate the transparency tool (just above the swipe tool) > move the slider bar, or type the percent transparency into the box
27	Change symbol	Content Pane	Click on a feature class symbol in the Contents pane and select a different point or line symbol, change the color, color ramp, pattern, etc.
28	Selection by location	Map tab	Select by Location > in the Geoprocessing pane, complete the dialog selections for Input Feature Layer, (location) relationship, Selecting Features, and Selection Type, and if necessary Search Distance
29	Manual selection of features	Edit Tab > Select	Click on features individually or use Shift-Click to select multiple features
30	Remove data layers from the Table of Contents	Contents Pane	RC on Data Layer > Remove
31	Snapping stuff: 1. Turn snapping on/off, 2. Set snapping type 3. Set snapping tolerance	Edit Tab	1. Snapping > click icon to toggle between *Snapping is on* and *Snapping is off* 2. Snapping > select the icon for the type of snapping you want – e.g. end, vertex, edge, etc. 3. Snapping > Settings > XY tolerance > select either map units or pixels and type in an appropriate number to represent distance or pixels
32	Manual copy and paste features from one feature class to another	Edit Tab	1. Edit tab > Select > click on the feature/s you want to copy and paste 2. Edit tab > copy 3. Edit tab > paste special 4. Paste special > paste into *Layer* 5. Paste special > depending on your needs, check or uncheck the keep source values box 6. Paste special > from dropdown, select layer you want to paste the features into
33	Set the Map View 1. Projection 2. Display Units	Contents Pane	RC on Map name > Properties > 1. Coordinate Systems > Select the XY Coordinate System you want to use 2. General > Display units
34	Create a Topology and establish rules	Geoprocessing > Toolboxes > Data Management Tools > Topology	Select Tools to: 1. Create Topology 2. Add Feature Class to Topology 3. Add Rule to Topology 4. Etc.

35	Apply a Topology	Edit Tab	Manage Edits > Use dropdown to identify and select any topologies available in the Content pane
36	Turn visibility of individual layers on/off	Contents Pane	Check or Uncheck the box next to the layer name in the Table of Contents.
37	Create a polygon feature class from lines	Geoprocessing pane > Feature to Polygon tool	Search for the feature to polygon tool using the search tab in the Geoprocessing pane, or Geoprocessing pane > Toolboxes > Data Management > Features > Feature to Polygon
38	Access ArcGIS Pro help files	Project Tab	RC on Project Tab > Help
40	Symbolize vector features based on attributes	Contents Pane	RC on layer > Symbology > • Select *Single Symbol* to display non-categorical data > click on symbol and use Gallery and Properties to set symbol shape, size, color, etc. • Select *Unique Values* to display nominal data > value field to select attribute supplying categories > color scheme to set colors. • Select a choice from *Symbolize your layer by quantities* to display ordinal, interval or ratio scale data > dialog choices are then available to select: data field, normalization field, classification method, number of classes and color scheme
41	Open the Error Inspector and validate topology errors	Edit Tab	Click on Error Inspector Zoom to layer/s that are participating in the Topology Push the Validate button in the error inspector Note – there are several options that make your use of the error inspector more efficient. Play with them to figure out the best configuration for your workflow
42	Extend or Trim an arc	Edit Tab	Tools > More Tools 1. Select the feature you want to extend/trim 2. Click on the *Extend or Trim* tool 3. Select the line segment to which you want to extend a line. 4. Click
43	Split an arc	Edit Tab	Tools > Split 1. Select the line you want to split. 2. Select the Split tool 3. Click the spot on the line where you want it to split.
44	Reshaping a line or polygon	Edit Tab	Tools > Reshape

			1. Click the feature you want to reshape. 2. Click the reshape feature tool on the Edit toolbar 3. Create a line according to the way you want the feature reshaped. 4. Double click to finish the sketch and reshape the feature
45	Move an endpoint or vertex	Edit Tab	Tools > Vertices 1. Select the feature whose vertex you wish to move. 2. Click the vertex or endpoint you want to move. 3. Drag the feature you want to move to its new position. 4. Click off the feature to accept the suggested change
46	Convert Layer Theme to Feature Class	Content Pane	RC on Layer Theme > Data > Export → Feature Class to Feature Class 1. For the output Feature class, select the location where you want the features to live – if you put them into a feature data set the projection and coordinate system of the output will match that of the feature data set. If you put it in a folder or loose in the GDB it will match that of the input features Layer 2. Run
47	Zoom to extent of multiple layers	Contents Pane	Shift-click on each layer you want to include in the zoom, then RC on a layer and select zoom to layer.
48	Zoom to the extent of a single layer	Contents Pane	RC on the layer > Zoom to Layer
49	Access the Modify Features Pane	Edit Tab	Select Modify Features From here you will be able to: • select data to adjust • select adjustment method • Open links files or create links • Check the RMS error for the links • Perform a spatial transformation
50	Create Edgematch Links	Geoprocessing Pane	Open the tool *Generate Edgematch Links* (Editing Tools > Conflation > Generate Edgematch Links) From here you will set parameters • Identify the source features (the features that will move) • Identify the adjacent features (the features to which the source features will move

			• Set a search distance – how far will the link go to find an adjacent feature to snap to • Set source and target fields if you are using field values to improve edgematching
51	Edgematch Features	Geoprocessing Pane	Open the tool *Edgematch Features* (Editing Tools > Conflation > Edgematch Features) From here you will set parameters • Select the input features – these are the source features • Select the input link features – these are the links you created with the Generate Edgematch Links tool • Set the edgematch method appropriate to you data • If you want both the source and adjacent features to move during feature adjustment, input the name of the adjacent features • Select border features if you are using them control the movement of features
52	Accessing help files for tools in the tool box	Geoprocessing pane	Select the tool you are interested in exploring Hover over the "?" on the right side of the tool dialog to get a summary of the tool To get more information, click on the "?" to go to the ArcGIS Pro help file for a specific tool
53	Delete a field in a table	Catalog pane	RC on feature class or table containing the field you want to delete > Open > RC on field name > Delete
54	Set Tool Environments	Geoprocessing pane	Environments > set the environment
55	Set Project Environment	Analysis Tab	Environments Icon → set the environment
56	Symbolize Rasters	Contents Pane	RC on layer > Symbology > Select *Stretch* to symbolize continuous surface using a color ramp Select *Discrete* to symbolize data based on a selected number of colors Select *Classify* to group your data in a number of classes based on a particular classification scheme and apply a color scheme to the classes Select *Unique Values* to assign colors based on a limited number of unique values
57	Combine ordinal values in multiple rasters	Geoprocessing pane	Spatial Analyst toolbox > Math > Logical > Combinatorial And

			And other tools
58	Reclassify raster values	Geoprocessing Pane	Spatial Analyst toolbox > Reclass > Reclassify
59	Append feature classes	Geoprocessing Pane	Data Management Tools > General > Append
60	Add a Map Layout window	Map Frame tab	New Layout > select page size and orientation from the list
61	Insert Map Frame/s	Insert Tab	Map Frame > select the map frame you want to use in the layout
62	Set the size of the Map Frame	From the Map Frame	Select the frame > Format Tab > Size and Position Group Set the size and position on the page
63	Add a Legend to a Map Layout	Insert Tab	Click on Legend > the cursor changes to a cross hair > draw a rectangle on the Map Frame where you want the legend to appear
64	Format legend elements	Select the legend in the map frame	Legend Format Tab > Current Selection > Select a legend element > modify element in the legend format tab or the Element pane
65	Create a new Toolbox in a Project	Catalog pane	RC on Toolboxes > New Toolbox
66	Create a new ModelBuilder model in a project	Catalog Pane	RC on the toolbox where the model should be placed > New > Model
67	Finding a tool in Toolbox	Geoprocessing pane	Toolboxes > search for correct toolbox > tool tray > tool In the *Find Tools* space, type the name of a tool or process > select result from the resulting list
68	Setting tool parameters in Model Builder	Model Builder window	Double click on the tool > set the parameters > click *O.K.*
69	Validate a model	Model Builder window > ModelBuilder ribbon	Click on the *Validate* icon
70	Add a tool result to the ArcMap display	Model Builder window	RC on the result (green ovals) > Add to display
71	Run a model	Model Builder window > ModelBuilder ribbon	Click on the *Run* icon
72	Save a model	Model Builder window > ModelBuilder ribbon	Click on the *Save* icon
73	Draw a connection in Model Builder interactively	Model Builder window	Hold LC on data layer and move the cursor to the tool > release the mouse button > a dialog box opens > select the correct option in the dialog box
74	Rename a user created toolbox or model	Catalog pane	RC on the toolbox/model > Rename
75	Create Chart from a stand-alone table	Contents pane	RC on stand-alone table > Create Chart • Select chart type • Data – select/set chart parameters and symbol properties • General – add/edit chart title, X and Y axis titles

			Standalone Table tab > Selection • Select a component to modify (text, lines, background etc.) • Modify symbols, fill, text etc.
76	Open a model for editing	Catalog pane	RC on the model > Edit
77	Add a title to a map layout	Layout Window > Insert Tab > Text Subgroup	1. Rectangle > drag a rectangle on your layout page 2. Type map title into the text rectangle 3. Format text in the Format text pane a. Select the frame around the text b. RC > Properties c. This opens the Format Text pane d. Hunt around to find the format text options you need/want
78	Calculate attribute values in a field	In a table	4. If necessary, select the record, or records for which you want to calculate values 5. RC on the field to be edited and select *Field Calculator.* 6. Type in the appropriate values or expressions 7. Run the tool
79	Change the color of an element in a chart	Chart Properties Dialog – General Tab	• Click on *Symbol* in the Fields Table and select a color
80	Export a Chart	Chart window	With the chart window open, • Click on *Export* • Give a name to the export file • Be sure you add the proper extension to the name *(e.g. png or jpg)*
81	Save or Discard edits	Edit Tab	Click Save to save edits, or Discard to discard edits.
82	Using the *Select* tool	Analysis tab >Tools	This opens the Geoprocessing Pane > Toolboxes > Analysis Tools > Extract > Select • Enter the Input Features • Navigate to the output location and name the output feature class • Enter the expression/s to select a subset from the input features
83	Establish a Relate in ArcGIS Pro	Contents Pane	RC on table or feature class in the TOC → Joins and Relates → Add Relate Or select the layer or stand-alone table in TOC > select the data tab > Relates > Add Relate In the Geoprocessing pane, fill in the variables for *Layer Name, Input Relate Field, Relate Table, Output Relate Field, Relate name,* and *Cardinality*

84	Activate a Table Relate or Relationship	Contents Pane	Select the table where the records were selected > Data tab > Related Data > select the name of the related table
85	Create a Relationship Class	Catalog pane	Find the feature dataset where the feature class/es participating in the relationship live. RC on the feature data set > New > Relationship > enter the appropriate selections in the dialog to establish a relationship between tables
86	Calculating Euclidean distance using the *Near* tool	Analysis Tab >Tools	This opens the Geoprocessing Pane > Toolboxes > Analysis Tools > Proximity > Near
87	Summarize on an Attribute	Content Pane	Open a table, RC on attribute name → Summarize
88	Establish a Join in ArcGIS Pro	Content Pane	RC on table or feature class > Joins and Relates > Join
89	Add X,Y data	ArcMap	File → Add Data → Display X,Y Data
90	Projection of data	ArcToolbox	Data Management Tools → Projections and Transformations → Feature → Project Follow the dialog boxes to input the projection information you want
91	Slice – uses data classification to create new raster with classified values	Geoprocessing pane	Spatial Analyst toolbox > Reclass > Slice Input the required data and parameters to create a new raster based on classified values of the input raster
92	Calculate kernel density	Geoprocessing pane	Spatial Analyst toolbox > Density > Kernel Density
93	Turn vector features into a raster	Geoprocessing Pane > Toolboxes	Conversion Tools > To Raster > Feature to Raster – or Point to Raster – or Polygon to Raster – or Polyline to Raster
94	Calculate statistics in a series of rasters on a cell by cell basis	Geoprocessing Pane > Toolboxes	Spatial Analyst Tools > Local > Cell Statistics Follow the dialog boxes to input the parameters to carry out the process you want
95	Refresh the Geodatabase	Catalog Pane	Right Click on the GDB > Refresh
96	Calculate statistics in one raster based on zones in a second raster, or polygons in a feature class	Geoprocessing Pane > Toolboxes	Spatial Analyst Tools > Zonal > Zonal Statistics Follow the dialog boxes to input the parameters to carry out the process you want
97	Permanently join attributes from one table to another table	Geoprocessing Pane > Toolboxes	Data Management Tools > Joins and Relates > Join Field Follow the dialog boxes to input the parameters to carry out the process you want
98	Interpolates raster surface based on values at point locations using inverse distance weighting (IDW)	Geoprocessing Pane > Toolboxes	Spatial Analyst tools > Interpolation > IDW Follow the dialog boxes to input the parameters to carry out the process you want
99	Select a color ramp to symbolize quantitative data	Contents Pane	RC on feature class or raster > Symbology > Stretch > Select a Color Ramp from the Color Scheme dropdown

100	Quick view of summary statistics for rasters	Contents Pane	RC on raster > properties > Source > Statistics
101	Run a variety of raster calculations using Raster Calculator	Geoprocessing Pane	Toolboxes > Spatial Analyst Tools > Map Algebra > Raster Calculator
102	Create conditional statements to extract or reclassify raster data	Geoprocessing Pane	Tool boxes > Spatial Analyst Tools > Conditional > Con • Input the name of the conditional raster • Add a *Where* clause • Input the True Value – (the value of the value you want to use when the conditional statement evaluates to true) • Input the False Value – (the value you want to use when the conditional statement evaluates to false) Note: when you want the true or false value to be nodata – leave that field blank • Name the output raster
103	Make an X,Y Event Layer	Contents Pane	RC table with XY data fields > Display XY Data 1. In the geoprocessing pane, fill in the fields for the Make XY Event Layer 2. Pay particular attention to the spatial reference field – the spatial reference must match that of the XY data in the table 3. Run
104	Aggregate polygon geometry based on attribute values	ArcToolbox	Data Management Tools → Generalization → Dissolve Follow the dialog box to input the parameters to carry out the process
105	Add a basemap to a Map window	Map Tab	Basemap > Select a Basemap…
106	Determine the following for a raster: 1. Geographic Extents 2. Spatial Reference 3. Cell Size 4. Summary Statistics	Content Pane	RC on the layer > Properties > Source
107	Add or remove items from a legend	Contents Pane in Map Layout Window	Legend > uncheck the item/s you want to remove from the legend, check the items you want to add
108	Insert north arrow in a map layout	Insert Tab	North Arrow > Select style > drag to resize and/or move the north arrow
109	Format North Arrow elements	Select the north arrow in the map frame	North Arrow Tab > Format > Current Selection > Select a north arrow element >

			modify element in the North Arrow format ribbon or the Element pane
110	Manage design elements in a North Arrow	Select the north arrow in the map frame	North Arrow Tab > Design > modify north arrow design elements in the design ribbon
111	Insert scale bar in a map layout	Insert Tab	Scale Bar > select bar style and either Imperial or Metric units
112	Format Scale Bar Elements	Select the scale bar in the map frame	Scale Bar Tab > Format > Current Selection > Select a scale bar element > modify element in the legend format tab or the Element pane
113	Manage design elements in a scale bar	Select the scale bar in the map frame	Scale Bar Tab > Design > modify scale bar design elements in the design ribbon
114	Add Dynamic Text	Insert tab	Dynamic Text > select the dynamic text you want to add to the layout
115	Convert dynamic text to graphics for editing	Select dynamic text box	RC on selected text box > Convert to Graphics > edit text
116	Add text to a map layout	Insert Tab	Text > click on Aa > select pre-loaded text style > start typing
117	Format Text	Select Text Box	Current Selection > select text element for formatting > Format element in the ribbon or Format Text pane
118	Add Graphic Elements	Insert Tab	Graphics > Select element to add to the map > use cursor to add element
119	Edit elements	Select element	Element *(e.g.* rectangle) tab > format/edit element in ribbon, or Format pane
120	Draw order in Map Layout window	Contents pane	Select Drawing Order at top of pane > drag elements in the contents pane up, and down, to reorder the elements
121	Resize elements in a Map Frame	Contents pane	Locate the element in the map frame you want to resize > RC > zoom to layer or zoom to make visible
122	Export Map Layout	Share tab	Layout > Export • Select file format • Select resolution • Decide whether to clip to graphic extent, or export the entire page
123	Save Map Layout as a Layout File	Share Tab	Save As > Layout file > navigate to the folder where you want to save the layout > save as pagx file
124	Open Layout file	Insert Tab	Project > Import Map > navigate to pagx file > select the pagx file > OK
125	Create a bookmark	Map Tab	• Zoom to the location in your map you want to bookmark • On the map tab ribbon > Navigate tool group > RC on Bookmarks • New Bookmark • Name the bookmark • OK
126	Set the Scale for a Map	Layout Window	• In the lower left corner of the layout Window, you will find the scale box • Type the scale you want to use in this box and the data in the layout window will appear at that scale