STRETCHLEARN · WORKBOOK

Packaging Design - Workbook

This workbook turns the Packaging Design course into a real, finished folding carton. Each section pairs with a course module and mixes guided exercises, fill-in worksheets, and checklists so you end up with an actual print-ready file, a folded proof, and a presentation mockup - not just notes. Work through it with a dieline open in Illustrator, a craft knife and board on the desk, and a printer's spec sheet within reach. The value is in the box you build and the specs you write down so a printer can run it.

How Packaging Is Built: Dielines and Structure

Get fluent at reading a dieline and respecting the structural rules before you place any graphics.

Exercise: Annotate a Real Dieline

Obtain a folding-carton dieline (download a free Straight Tuck End template from a packaging printer, or ask one for a sample). On a printout, color-code and label every line type: cut, crease/fold, bleed, glue tab, and any perforation or window. Then identify and mark the front, back, sides, top, and bottom panels by mentally folding the box.

• Which color or line style is the cut line, and which is the crease line on your dieline?

• Where is the glue tab, and which face (inside or outside) is the dieline drawn from?

• Trace the fold sequence - which panel becomes the back when assembled, and is its art orientation upright?

Worksheet: Carton Structure Spec

Define the structure for your project carton before designing. Pick a real product to package and let its size, weight, and category drive these choices.

Product being packaged (and approximate size/weight)

Carton style (Straight Tuck End / Reverse Tuck End / Auto-Bottom / Seal End)

Substrate and caliper (e.g. 18 pt SBS / CCNB / kraft / E-flute)

Assembled dimensions (L x W x H) and flat dieline size

Safety margin to hold from cut and fold lines (e.g. 3 mm)

Glue tab and dust-flap locations to keep clear of art

Checklist: Dieline Setup Checklist

[ ] Dieline moved onto its own layer named Dieline
[ ] All dieline paths set to a clearly named spot swatch (e.g. CutContour)
[ ] Dieline set to Overprint so it never knocks out art
[ ] Dieline layer locked and kept at the top of the stack
[ ] Front/back/side/top/bottom panels identified and orientation confirmed
[ ] Glue area, dust flaps, and safety margins marked before any art is placed

Print Production: Specs, Color, and Files

Make the artwork printable - set bleed, choose spot versus process color, and assemble the printer's spec.

Exercise: Spot vs Process Decision Pass

List every color in your design. For each, decide whether it should be a CMYK process build or a Pantone spot ink, and justify the call. Pull at least one brand color from the Pantone library as a spot swatch using the correct coated (C) or uncoated (U) book for your substrate, then open Separations Preview to confirm each spot sits on its own plate.

• Which colors did you make spot (Pantone), and why does each one earn a dedicated plate?

• Did you use the coated (C) or uncoated (U) Pantone book, and does it match your board?

• In Separations Preview, does each Pantone appear on its own plate with no CMYK accidentally riding it?

Exercise: Bleed and Overprint Audit

Set up your document with the required bleed (e.g. 3 mm past every cut line). Confirm all edge artwork extends into the bleed and all critical content sits inside the safety margin. Then turn on Overprint Preview and inspect: black type should overprint, white must knock out, and nothing should disappear.

• Does every element that touches the edge extend the full bleed past the cut line?

• Is any critical content (logo, legal copy, barcode) too close to a cut or fold?

• In Overprint Preview, did any white element vanish, or any black type reveal white edges?

Worksheet: Print Spec Sheet

Fill this out so a printer could run your job without emailing questions. Confirm the unknowns (process, rich-black recipe) with your chosen printer.

Carton style + finished flat and assembled dimensions

Substrate and caliper (e.g. 18 pt SBS) and print process (offset / flexo / digital)

Process colors used (CMYK) and rich-black recipe for large black areas

Each Pantone spot ink named exactly (e.g. PANTONE 485 C)

Finishes and their location (flood matte laminate / spot UV on logo / foil on wordmark / emboss)

Deliverable format (PDF/X with bleed, dieline on non-printing layer) and run quantity

Checklist: Print-Readiness Checklist

[ ] Document color mode is CMYK, with no stray RGB images
[ ] Every Pantone is a correctly named Spot swatch (not Process)
[ ] Bleed of the required amount on all four edges of art
[ ] Black type set to overprint; white set to knock out
[ ] Dieline on its own non-printing/technical layer, set to overprint
[ ] Minimum type sizes and line weights respected for the print process

Shelf Impact: Designing the Visible Package

Design the visible package - front-panel hierarchy, real shelf standout, and the regulated panels the product must carry.

Exercise: Front-Panel Hierarchy Build

Design the Principal Display Panel (PDP) of your carton with a deliberate hierarchy: brand/product identity first, then the product descriptor (the common name), then one key benefit or differentiator, then supporting cues (net quantity, image, badges). Use only one or two typefaces and strong figure-ground contrast.

• In one glance, can a stranger tell what the product is, who it is for, and why this one?

• What is your single key differentiator on the front, and is it clearly subordinate to the brand name?

• How many typefaces did you use, and does the product name pop from its background?

Exercise: The Shelf Standout Test

Place a thumbnail of your front panel in a row of real competitor thumbnails (photograph the actual category shelf or pull competitor listings). Ask someone to find yours and time it. Then squint until detail blurs and view it under cool white light, slightly angled, to mimic store conditions.

• How long did it take a stranger to locate your package among competitors?

• Squinting, is the brand and product still identifiable by shape and color alone?

• Which category color/imagery conventions did you keep, and which did you break to stand out?

Worksheet: Mandatory Panel Layout Plan

Reserve space for the legally required content before refining graphics. Confirm the exact requirements for your specific product and country with a regulatory or legal contact.

Product identity / common name (on PDP)

Net quantity statement (amount + units, lower PDP)

Manufacturer or distributor name and address

Ingredient/materials list or nutrition/INCI panel, warnings, directions

Barcode (UPC/EAN) size (target ~100 percent) and flat, light placement away from folds/glue

Clear varnish-free zone for the lot/expiry code overprinted on the line

Checklist: Barcode and Compliance Checklist

[ ] Barcode at or near 100 percent nominal size (never below ~80 percent)
[ ] Quiet zone (clear margin) preserved on both sides of the bars
[ ] Dark bars on a light background; no red background; not reversed
[ ] Barcode on a flat panel, not across a fold or curve, and clear of the glue area
[ ] Net quantity, identity, and responsible-party address all present and legible
[ ] Regulatory/legal copy signed off in writing before print

Prototyping, Mockups, and Client Handoff

Turn the flat file into a folded proof, a photoreal mockup, and a clean print-ready handoff.

Exercise: Build a Folded Proof

Print your dieline at 100 percent scale onto board close to the real caliper. Cut the cut lines with a craft knife and metal ruler, score the crease lines with a bone folder or the back of the knife, and assemble with a glue stick. Build a plain white structural dummy first, then print your full-color artwork onto a dieline and fold that too.

• Did the white dummy reveal any structural or proportion problems on screen you had missed?

• On the printed-and-folded version, does any logo, word, or face get bisected by a crease?

• Is any panel mirrored or upside down, or any type trimmed at the edge, once folded?

Worksheet: Mockup and Presentation Plan

Plan the set of mockups that will win approval for your design. Tailor the views to the decision-maker (founder needs hero + shelf; retail buyer needs shelf + barcode panel).

Mockup method (smart-object PSD template / photo of real proof / 3D render in Dimension or Blender)

Hero front shot - angle and lighting plan

Back/information panel view to include

Range or multi-pack lineup view (Y/N)

On-shelf render among competitors to prove standout (Y/N)

Finishes to represent (matte/gloss/soft-touch/foil/spot UV) and how

Worksheet: Handoff and Delivery Log

Record exactly what you delivered so the handoff is reproducible and complete. A clean file plus a one-page spec plus the approved visual reference closes the loop.

Deliverable exported (PDF/X-1a or X-4 with bleed / packaged native .ai)

Fonts outlined or font files packaged? (Y/N)

All linked images embedded/collected at full resolution? (Y/N)

Dieline included on its own labeled non-printing layer? (Y/N)

File named with product, version, and date

Signed hard proof or approved mockup attached as the visual reference? (Y/N)

Checklist: Final Pre-Flight Handoff Checklist

[ ] Color verified in Separations Preview: CMYK plus correctly named spots, no stray RGB
[ ] Bleed present on all edges; critical content inside the safety margin
[ ] Overprint Preview clean: black overprints, white knocks out, nothing vanishes
[ ] Dieline on its own non-printing layer, set to overprint, usable to make the cutting die
[ ] Hard proof checked for color and a folded dummy checked for structure
[ ] Barcode scanned successfully before approval
[ ] One-page spec sheet (style, substrate, every ink, every finish, quantity) sent with the file

Your Action Plan

1. Choose a real product to package and define its carton style, substrate, and assembled dimensions.
2. Obtain a dieline, set it up as a locked non-printing top layer, and annotate every line and panel.
3. Mark glue areas, dust flaps, and a consistent safety margin before placing any artwork.
4. Set the document to CMYK with the required bleed, and decide spot versus process for every color.
5. Design the front panel with a clear hierarchy and test it for standout against real competitors.
6. Reserve and lay out the mandatory panels - identity, net quantity, address, ingredients, and a full-size barcode.
7. Run the print pre-flight: separations, overprint, outlined fonts, embedded links, and bleed.
8. Build a white structural dummy, then print, cut, and fold a full-color proof and fix what breaks.
9. Create a photoreal mockup set - hero, back panel, range, and an on-shelf render - to present.
10. Export a PDF/X print-ready file with the dieline layer and deliver it with a one-page spec sheet and the approved proof.