

Information & Communication Architecture — Lab 2 — UI/UX Principles & Figma Foundations

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Lab agenda

Duration	Topic
10 min	UI vs. UX: Purpose, execution & team specializations
10 min	The three basics of great UX & interface anatomy
10 min	Figma architecture: Frames, Rectangles & Text
10 min	Live demo: Building a mobile login screen in Figma
10 min	UI/UX DOs & DON'Ts: Login screen case study
35 min	Hands-on sprint: Build a mobile sign-up screen
5 min	Rubric, self-audit checklist & wrap-up



01 — Conceptual boundaries

Deconstructing digital product architecture and industry specializations



UI vs UX — Purpose and Execution

UX — User Experience

System Architecture & Emotional Journey

- **Focus areas:**

- Usability, friction reduction, and intuitive workflows.
- Information flows and information architecture.
- Mental models, task completion, and user satisfaction.

Core Question:

"How does it work and feel to use?"

UI — User Interface

Visual Communication & Sensory Controls

- **Focus areas:**

- Typography scales.
- Color systems.
- Layout grids.

Core Question:

"How does it look and communicate visually?"



Specializations in product teams

Modern product organizations divide design into distinct, complementary disciplines:

DISCOVERY

UX Researcher

Uncovers user behaviors, motivations, and mental models through interviews, usability testing, and analytics.

Focus: User validation

STRATEGY & DESIGN

Product Designer

Connects workflows to business goals; drafts wireflows, high-fidelity mockups, and interactive prototypes.

Focus: Product architecture

IMPLEMENTATION

Design Systems Engineer

Bridges design and production code with standardized token architectures, UI libraries, and accessibility.

Focus: Scalability & handoff



02 — rules of thumb & interface anatomy

Evaluating and constructing digital interfaces through fundamental heuristics



The three basics of great UX

Before opening any design tool, digital interfaces are evaluated through three core pillars:

1

Visual Hierarchy

Guides eye sequence across content through intentional variations in scale, weight, and contrast.

💡 **Rule:** Key item (e.g. title) must grab the eye within 1 second.

2

Visual Contrast

Ensures clarity and access: guarantees legibility and makes interactive affordances obvious.

💡 **Rule:** Adjacent colors must meet WCAG AA standards ($\geq 4.5:1$ ratio).

3

Familiarity & Consistency

Preserves mental models: eliminates steep learning curves and navigational friction.

💡 **Rule:** Never make users re-learn navigation. Innovate on value.



Deconstructing the interface



1. Visual Hierarchy

The dominant 16:9 hero thumbnail and bold 18px title anchor visual priority before secondary date metadata.

2. Visual Contrast

High contrast between the card surface, text, and primary blue CTA button meets WCAG AA standards ($\geq 4.5:1$ ratio).

3. Familiarity & Consistency

Standard mobile card pattern (thumbnail top → copy middle → primary action base) matches universal mental models.



03 — Figma architecture

Mental models and layout mechanics for building production-ready components



Three basics of Figma

Figma builds complex interfaces out of three foundational primitives:

CONTAINER

1. Frames

Like a stretched canvas, a Frame is a top-level artboard and semantic container (like an HTML `<div>`). It defines coordinate space, background fill, clipping, and powers Auto-Layout.

Analogue: Canvas & Viewport

SHAPE ELEMENT

2. Rectangles

A primitive vector shape element that exists *within* a Frame. Ideal for cards, dividers, surface fills, and decorative backings, but cannot independently nest child layers.

Analogue: Surfaces & Shapes

TYPOGRAPHY

3. Text

The atomic content layer that renders vector glyphs. Governed by font family, weight, line-height, and sizing modes (Auto width, Auto height, Fixed) to communicate meaning.

Analogue: Written Content



Live demo — Building a mobile login screen

Step-by-Step Procedure:

1. Mobile Frame (F): iPhone 16 preset (393px width), 8pt grid, white fill.

2. Header Hierarchy: Brand mark, "Welcome Back" title (24px Bold), muted subtitle.

3. Input Fields: Email & Password inputs with label, 1px border, 12px padding.

4. CTA Button (Shift + A): "Sign In" with Auto-Layout, blue fill, 8px radius.

5. Unified Stack: Wrap all elements in a vertical Auto-Layout with 16px gap.

KEY OBSERVATION POINTS

- **Frame vs. Rectangle:** Top-level container is a native Frame, not a flat rectangle shape.
- **Auto-Layout (Shift + A):** Padding and gap adjust dynamically without manual nudging.
- **Fill Container:** Inputs and buttons stretch cleanly across the full frame width.

 **Follow along:** Open your Figma workspace to watch and replicate each interaction in real-time.



04 — DOs & DON'Ts of UI/UX

Real-world login screen comparisons across the three fundamental UX pillars



DOs & DON'Ts — Visual Hierarchy

DO: SCAFFOLDING

Clear Focal Priority

APP LOGO

Welcome Back

Sign in to your account

name@domain.com

.....

Sign In

Forgot password?

- **Focal Anchor:** Bold headline anchors visual intent immediately.
- **Action Dominance:** Full-width primary CTA clearly commands the screen.

Result: Effortless scan path in < 1 second

DON'T: EXTREME BREAKDOWN

Container Breaches & Lost CTA

🔥 SIGN UP RIGHT NOW! 🔥

ENTER YOUR COMPLETE EMAIL ADDRESS:

name@domain.com (SPILLS OUT!)

.... (tiny)

🔥 50% OFF CLICK HERE FIRST 🔥

submit

already have account?

- **Container Breach:** Banner and inputs literally break out of phone margins.
- **Inverted Weights:** Giant promo button drowns out the microscopic submit CTA.

Result: Severe disorientation, visual stress & lost conversion



DOs & DON'Ts — Visual Contrast

DO: WCAG CONTRAST

Ratio $\geq 4.5:1$

APPLOGO

Welcome Back

Deep slate copy (16:1 ratio)

user@example.com

.....

Sign In (7.2:1)

Forgot password?

- **WCAG AA Compliant:** Sharp text-to-background contrast.
- **Clear Affordance:** Inputs and buttons have unmistakable interactivity.

Result: Universal accessibility & clear clickability

DON'T: TOXIC PALETTE FAIL

100% WCAG Violation (1.1:1)

APPLOGO (INVISIBLE)

Welcome Back (0% Contrast)

Illegible text on toxic chartreuse fill

Black text on Maroon (1.1:1)

Gray on Gray (1.3:1 invisible)

SIGN IN (1.4:1 WHITE ON LIME)

Forgot password? (Fails WCAG)

- **Catastrophic Contrast:** Black on maroon (1.1:1) & white on neon lime (1.4:1).
- **Garish Toxic Palette:** Clash of neon chartreuse, maroon & lime green strains eyes.

Result: Immediate eye fatigue; fails WCAG across all elements



DOs & DON'Ts — Familiarity & Consistency

DO: CONSISTENT SYSTEM

Jakob's Law & 8pt Grid

Welcome Back

Standard 8px radius on all controls

Sign In

Or continue with:  

- **Uniform Shapes:** All inputs and buttons share an identical 8px corner radius.
- **Cohesive Assets:** Cleanly scaled, matching social icons in an 8pt layout grid.

Result: Cohesive design system & zero mental friction

DON'T: CHAOS & OUT OF FRAME

Inverted Flow & Asset Clashing

Welcome Back

Password first & spills out of container!

Password First (Spills Past Frame!) ⚠️

CANCEL ALL

Sign In

 [6.jpg gray box]



sign in with google? sign in facebook? or don't sign in?

- **Container Breach & Inverted Flow:** Password asked first & spills out; Email asked second.
- **Shape & Asset Chaos:** 0px boxes mixed with pills; unclipped screenshots & conflicting CTAs.

Result: Total user distrust, high misclick rates & broken mental model



05 — Hands-on sprint

35-minute hands-on sprint building a production-grade mobile sign-up screen



Execution roadmap — Sign-up page (35 mins)

Follow these four progressive steps sequentially to build your screen:

Step 01: Frame & Grid Setup

5 mins

- Press **F** and select the **iPhone 16** preset (393px).
- Set background fill to **#FFFFFF**.
- Configure an 8pt layout grid (or 16px margin guides).

Step 02: Header & Typography

8 mins

- Place brand logo or top bar navigation icon.
- Add **"Create Account"** headline (24px Bold).
- Add muted subtext (14px Regular) and group with Auto-Layout.

Step 03: Input Fields

12 mins

- Build inputs for **Full Name**, **Email**, and **Password**.
- Use Auto-Layout with **12px** vertical & **16px** horizontal padding.
- Set 1px border (**#CBD5E1**), 8px radius, and 16px vertical gap.

Step 04: CTA Button & Footer

10 mins

- Type *"Create Account"*, wrap with Auto-Layout (**Shift + A**).
- Apply **#1D4ED8** (ICA Blue), 8px radius, 14px padding.
- Set width to **Fill Container**. Add *"Already have an account? Log in."*



Rubric & self-audit checklist

1. Visual Hierarchy

Sub-2s scan

Headline and CTA immediately dominate secondary metadata.

2. Visual Contrast

WCAG AA

Text and button fills meet minimum 4.5:1 accessible contrast ratio.

3. Consistency

8pt Grid

Standard mobile input order, top-down flow, and predictable spacing.



SELF-AUDIT PROTOCOL

Before requesting checkoff from a TA:

- 1. Hierarchy Test:** Does the eye land on "Create Account" first, then flow naturally to inputs and CTA?
- 2. Contrast Check:** Is input text and button copy clearly legible from arm's length?
- 3. Auto-Layout Check:** Does resizing frame width keep elements aligned without manual tweaks?



Sprint active — Open Figma & begin

SPRINT ACTIVE

Open Figma & Start Lab 02: Sign-Up Sprint

Duplicate the starter file from the course workspace. Instructors and TAs are circulating to assist.

DURATION

35 Mins



References & useful links

FIGMA LEARNING & GUIDES

[Figma Learn — Auto Layout In-Depth](#) — official documentation

[Figma YouTube — Auto Layout Masterclass](#) — practical component walkthroughs

UI/UX FUNDAMENTALS & HEURISTICS

[Nielsen Norman Group — 10 Usability Heuristics](#) — core interaction principles

[Refactoring UI by Adam Wathan & Steve Schoger](#) — practical developer interface guidelines

[Material Design 3 — Layout & Touch Targets](#) — responsive grids and touch targets

Keep these resources bookmarked as you refine your interface designs for the semester project.

Bring your finished Figma sign-up screen to the next session!

