

Week 2: Responsive design

Slides: `slides/01_responsive.pdf`

Time: **50 minutes** (Tune In **5** / Activity **35** / Reflection **10**)

Get this instruction:

https://github.com/ruhendrawan/cs1520_recitation

Work in pairs or alone

- ▶ If in pairs: work with your peer through all parts
- ▶ If alone: self reflect and write down on the worksheet
 - ▶ You do not need a grammar check
 - ▶ Don't overcorrect
 - ▶ Write like you're saying it out loud

Reflection and Submission

Submit in the google form:

<https://forms.gle/tYEtKjJunM1wb2we6>

You need to submit the zip file if you're working alone, otherwise just fill in the form.

Upload zip files named as <PITT ID>-<week>.zip, e.g.
rah225-02.zip, containing:

- ▶ This worksheet
- ▶ page.html (or any files related to your work)

Part 1 — Tune In (5 minutes)

Pairs: talk in turns. Max **1 minute** per person before switching so everyone gets a chance to talk.

Working alone? Download `02-responsive-design-worksheet.md` and write your responses there.

Pick **1–3 concepts** from this week's lecture and explain them in your own words (fast + messy is fine).

Concept ideas (pick any 1–3):

- ▶ Visual viewport vs layout viewport
- ▶ CSS pixels (when a pixel isn't a pixel)
- ▶ The `<meta name="viewport" ...>` tag (why it exists, what it changes)
- ▶ CSS media queries (`min-width`, `max-width`, `orientation`)
- ▶ “Use relative sizes” + “breakpoints” (mobile-first thinking)

Part 1 — Starter questions

- ▶ What is it (in one sentence)?
- ▶ Why do we need it on phones vs laptops?
- ▶ What problem does it solve?
- ▶ What would break if we *didn't* use it?
- ▶ Where would you use it in a real app/site you care about?

Part 2 — Activity (35 minutes)

Do **one** of the three tracks below (or split into groups and compare results at the end).

- ▶ Track A — Follow-along (guided)
- ▶ Track B — Challenge
- ▶ Track C — Choose your own

Track A — Follow along and build a page

Choose **Option 1** or **Option 2**.

Option 1: Beginner in HTML CSS

1. Your first website
 2. Creating the content
 3. Styling the content
- ▶ Finding color, images, and fonts

Option 2: Understand the basics of HTML and CSS

1. Responsive design (MDN Learn)
2. Media queries (MDN Learn)

Track A — Checkpoints

- ▶ You built a page (HTML + CSS) and can show it in the browser
- ▶ You changed something and saw the browser update (small win)
- ▶ If you did Option 2: you can explain one media query you used (in plain language)

Track B — Challenge (pick one)

- 1) Responsive “student dashboard”
- 2) No-scroll mobile page
- 3) Breakpoint story

Track B — 1) Responsive “student dashboard”

- ▶ Goal: Build a single-page dashboard layout that feels good on phone + desktop
- ▶ Constraints:
 - ▶ Use at least **2 breakpoints**
 - ▶ Use at least **one relative unit** (% , rem, vw, etc.)
 - ▶ Navigation changes layout across breakpoints
- ▶ Stretch:
 - ▶ Add orientation media query to improve landscape mode

Track B — 2) No-scroll mobile page

- ▶ Goal: Make a landing page that never causes horizontal scrolling on mobile
- ▶ Constraints:
 - ▶ Test at very narrow width (like 320px)
 - ▶ Images/cards scale down properly
 - ▶ No fixed-width containers that force overflow
- ▶ Stretch:
 - ▶ Add centered desktop layout with `max-width` + auto margins

Track B — 3) Breakpoint story

- ▶ Goal: Layout changes “story” at different widths (grid → sidebar, etc.)
- ▶ Constraints:
 - ▶ 3 layouts total: small / medium / large
 - ▶ Each layout changes content emphasis
 - ▶ Keep HTML the same; only CSS changes
- ▶ Stretch:
 - ▶ Explain why your breakpoints are where they are (2–3 sentences)

Track C — Choose your own

Use this week's topics: **relative sizes, breakpoints, viewport/meta viewport, and media queries.**

Examples:

- ▶ Personal homepage / portfolio grid
- ▶ Resume/CV page
- ▶ Study tracker (today/this week/done)
- ▶ Budget tracker dashboard
- ▶ Event flyer page
- ▶ “Link hub” page for online presence

Definition of done:

- ▶ Viewport meta tag used
- ▶ 2+ media queries
- ▶ Relative sizing used (% , rem, max-width, etc.)
- ▶ Readable on narrow window (no horizontal scrolling)
- ▶ You can explain what changes at each breakpoint and why

Part 3 — Reflection (10 minutes)

Pairs: talk in turns. Max **1 minute** per person before switching so everyone gets a chance to talk.

Working alone? Download 02-responsive-design-worksheet.md and write your responses there.

A) What you did

- ▶ Quick checklist is fine, no overcorrection needed

B) Connect it back (prior lecture)

Prior lecture idea to connect: **HTML metadata + the <meta> tag**

- ▶ What is an HTML <meta> tag for?
- ▶ How does the viewport meta tag change what the browser does on mobile?
- ▶ How did it affect your work today?

If you're stuck

- ▶ Which screen size are you targeting first (smallest)?
- ▶ Are you using any fixed widths that force overflow?
- ▶ Did you include the viewport meta tag?
- ▶ What is each breakpoint trying to improve (readability, spacing, layout)?