

CSS Grid

- Allows layout for child elements
- In vertical and horizontal grid
- Blocks can "span" multiple "cells"
- We used "areas"
 - With different column sizes
 - Not the only option

CSS Grid Properties

We will be using some additional CSS properties

Parent element: (with `display: grid;`)

- `grid-template-columns: repeat(12, 1fr);`
 - Creates even distribution of space in columns
 - `12` can be any number
- `gap` - puts space between columns/rows

CSS Properties Child Element

- `grid-column: span 1;`
 - The `1` can be any number
 - Child will span that many cells
 - Spans over any gap
- `grid-column: 3 / 6;`
 - The `3` and `6` can be any number
 - Think of the `/` as "to"
 - Child will span from "line" 3 to "line" 6
 - Lines are the start/end of cell boundaries
 - Line 1 is left side of first cell
 - Line 2 is right of first cell, left of 2nd

Not Areas

- We used `grid-template-areas` and `grid-area`
 - Those are still valid
 - But we aren't using them here
 - Different way of laying cells out

Grid layout without display: grid

- Grid column layout is a design idea
 - CSS Grids are a good way to implement
 - ...but not the only way
 - Can do with flex
 - Can do with percentage widths
- Concept vs implementation
 - Different
 - ...but please use css grid

display: grid impacts direct children

Remember how `display: grid;` works

- Only affects direct children
- To match non-child elements to grid
 - Make wrapper width 100%
 - Recreate the same grid inside wrapper

Grid column layouts

A common design pattern

- Page layout aligns to evenly spaced columns
- A row will contain items
 - Spanning cells
 - Evenly or unevenly

Various Online Grid Layouts - Good and Bad

Most not using CSS Grids, but are multi column grids

- <https://wines.com/>
- <https://bostonglobe.com/>
- <https://bbc.com/>

Compare these:

- <https://allrecipes.com/> - consistent "break out"
- <https://www.usfigureskating.org/> - inconsistent

"Choppy" - Better if they used a grid:

- <https://www.usarchery.org/>

Previous Iteration of NEU website

<https://web.archive.org/web/20221231134920/https://www.no>

[→ Admissions](#)[→ Admissions](#)[→ Security](#)[→ Campus Network](#)[→ Visit Campus](#)[→ PhD Education](#)[→ Sustainability](#)[→ Admissions](#)

Athletics

Northeastern Huskies are bold, driven, and distinctly ahead of the pack. #HowlinHuskies

[→ More About Athletics](#)

Alumni

Find the resources you need to stay in touch with your Northeastern community and achieve what's next, in your career and life.

[→ More About Alumni](#)

Student Life

Explore all there is to do and experience on Northeastern's campuses and within our virtual communities.

[→ More About Student Life](#)

TRENDING EVENTS

Nov 17

**GSS Coffee &
Conversations: Being in**

Nov 17

**DH Office Hours: GIS Day
Celebration**

Nov 18

**Space Diplomacy
workshop**

Nov 18

**In Pursuit of Knowledge:
Black Women and**

Responsive Alignment

Benefits of this column layout

- Allows mix of sizes
- Consistent alignment
 - Not off by a pixel or two
- Don't need to declare areas
 - "rows" can auto wrap
- Easily responsive
 - Cells evenly expand

Adaptive Alignment

Another potential benefit

- Change the cells elements span
 - At different breakpoints
 - Mobile/Tablet/Desktop?

Adaptive Tablet Example



UNDERGRADUATE >

- Academic Programs
- Admissions
- Visit Campus



GRADUATE >

- Graduate Programs
- Admissions
- PhD Education



RESEARCH >

- Health
- Security



LIFELONG LEARNING >

- Professional Programs
- Campus Network

Adaptive Phone Landscape Example

RESEARCH >

→ Health

→ Security

→ Sustainability

LIFELONG LEARNING >

→ Professional Programs

→ Campus Network

→ Admissions



Athletics

Northeastern Huskies are bold, driven, and distinctly ahead of the pack. #HowlinHuskies

→ More About Athletics

12 Column Grid

- Many grid layouts exist
- 12 column is very common
 - Allows options for even spanning:
 - 6 columns, 4 columns, 3 columns
 - Allows offset combos:
 - 3+9, 4+8

Why 12 columns though?

- Good number of options
 - Mostly
- All subjective

Rule of Thirds

In photography, the **Rule of Thirds** says

- Divide picture up into thirds
- Vertically and horizontally
- The 4 intersections are more "visually interesting"

[https://en.wikipedia.org/wiki/Rule of thirds](https://en.wikipedia.org/wiki/Rule_of_thirds)

12 Column Format allows for thirds

Web Design is a little different than photography

- Photos don't scroll

But you can still use that concept

- A 3+6 or 6+3 split
 - Puts center of an item at "interesting" point
- A 4+8 or 8+4 can work if edges are interesting

News@Northeastern

Less than half of US college students know their schools' vaccination policies, study shows >

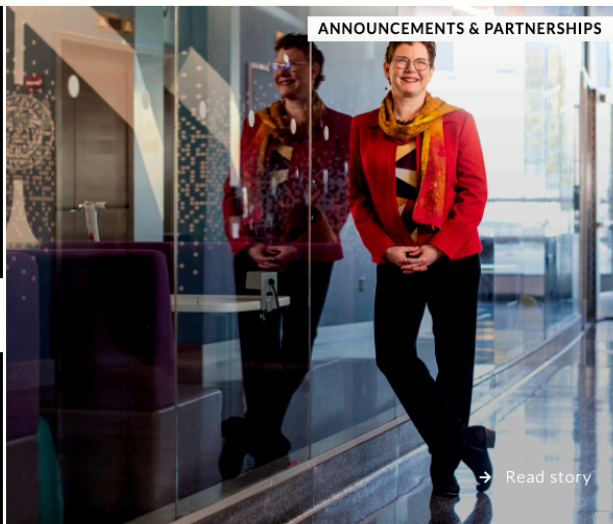
The charismatic appeal of a celebrity-in-chief >

International business scholar appointed to prestigious professorship >

Human-centered computing pioneer appointed as new Khoury College dean >

MEDIA INQUIRIES

ANNOUNCEMENTS & PARTNERSHIPS



→ Read story

Parent Channel
Everything you need
to know



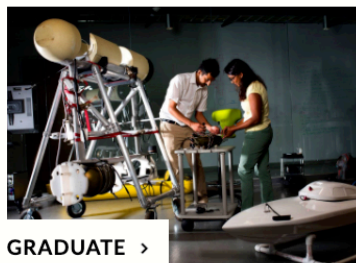
COVID-19 Important
information

LEARN MORE

COVID-19 DASHBOARD



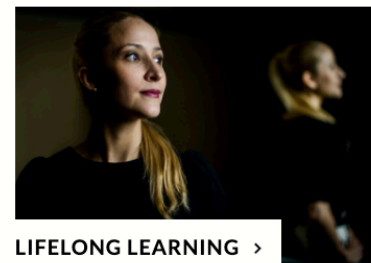
UNDERGRADUATE >



GRADUATE >



RESEARCH >



LIFELONG LEARNING >

Summary - CSS Grids

- We already used `grid-template-areas`
- For multi-column layout
 - Can use `grid-template-columns`
 - With `repeat()`
 - For evenly sized columns
 - Optionally `gap`
- `grid-column`
 - Can take `span` to span cells
 - Can use `/` to range from/to boundaries

Summary - 12 column grid

- Many grid layouts exist
 - Can be done without CSS Grids
 - But why?
- 12 column very common in web dev
 - Allows for different splits
- Grids are naturally responsive

Summary - Adaptive Grids

Grids can make it easy to have adaptive breakpoints

- Change the number of total columns
 - Items will "wrap" to different rows
- Change the span of different items
 - Will be a reasonable size

You can have multiple adaptive breakpoints