Welcome & FAQs

Syllabus

- course: intro to the theory & practice of creating responsive websites

- 3 common approaches: using fluid measurements & media queries
  using an existing framework (eg. Bootstrap) that does all the responsive design 4 you
  hybrid — use a framework in combination w/ your own responsive code

Introduction to Responsive Design

- basics: what is responsive design?
  why you need to know responsive design?
  customizing your site
  using frameworks

- week 1: focus on theory
  - what does responsive design mean?
  - what makes for good responsive design?
  - role of fluid measurements

- week 2: media queries
  - what are they?
  - how to plan first (best practice)?
  - what's the relationship w/ break points?
  - how to make a navigation bar

- week 3: frameworks
  - benefits
  - pitfalls
  Bootstrap 3
  - getting started
  - grid system
  - navigation

- week 4: more Bootstrap
  - images
  - tables
  - advanced navigation
  - case studies

Lecture Materials — Week 1

What is Responsive Design?

· **responsive web design** = designing site w/ multiple screen sizes/resolutions in mind

· site should : give user power
work under any platform
"   " any browser size
"   " any orientation

· small screen ≠ less content
· never assume user won't need access to a functionality

· concepts to consider : media queries
– detects viewport size
flexible grid·based layout
– for relative sizing
flexible images

check out examples of great design : http://mediaqueri.es/

Testing Existing Sites

· test site for responsiveness : resize your window
use an online tool
chrome/firefox tools

· **resize your window** = resize then refresh site
doesn't work on mobile devices

· **use an online tool** : http://ami.responsivedesign.is/

· **chrome or firefox tools** = many browsers have tools to view code on different viewports

⟶ (eg. Chrome) : inspect element > toggle device mode

· survey existing sites to see : what to do
what not to do

Benefits of Responsive Design

· responsive options : responsive web design
adaptive design
separate mobile site — very popular

· **responsive web design (RWD)** = server is sending back the same code regardless of the device
detectable via : meta name = "viewport"
(ie. fluid measurements, flexible grids, & varying CSS rules)

- adaptive design (aka dynamic serving) = server returns different code (HTML & CSS) based on type of device requesting the page
  same url is used
  con → server detects wrong device type

- separate mobile site (.m) = server returns different code to desktop & mobile devices on different urls
  relate urls via: `<link rel="canonical"/"relative">`

- why RWD: easier to share data w/ a single url
  easier for search engines to index page
  fewer files → less maintenance
  less redirection → shorter load time

Fluid Measurements   1 vw = 1% of viewport width
- your content should fit size constraints of the viewport

- vertical scrolling for content
- horizontal scrolling = bad design

- absolute measurements: pixel (px)   one device pixel (dot) of the display ⎤
  millimeter (mm) |
  centimeter (cm) | to hardcode values
  inch (in) |
  point (pt)   1 pt = 1/72 in |
  pica (pc)   1 pc = 12 pts   ⎦

- fluid/relative measurements: %
  em
  rem   will respond to viewport size
  vw
  vh

- percentage (%) value = always relative to another value (eg. length)

- em = font size of the element

- rem = font size of the root element

- vw = viewport's width
  1 vw = 1% of viewport width

- vh = viewport's height
  1 vh = 1% of viewport height

- 1 em = 12 pt = 16 px = 100%
- 1 in = 2.54 cm = 25.4 mm = 72 pt = 12 pc