



# Web Development Tools

We'll be using **Firefox** with **Firebug**.



You don't need Firebug; you can use the default tools instead. **Chrome** is also a great dev browser. **Edge** and **Safari** also offer dev tools, but they're not as svelte.

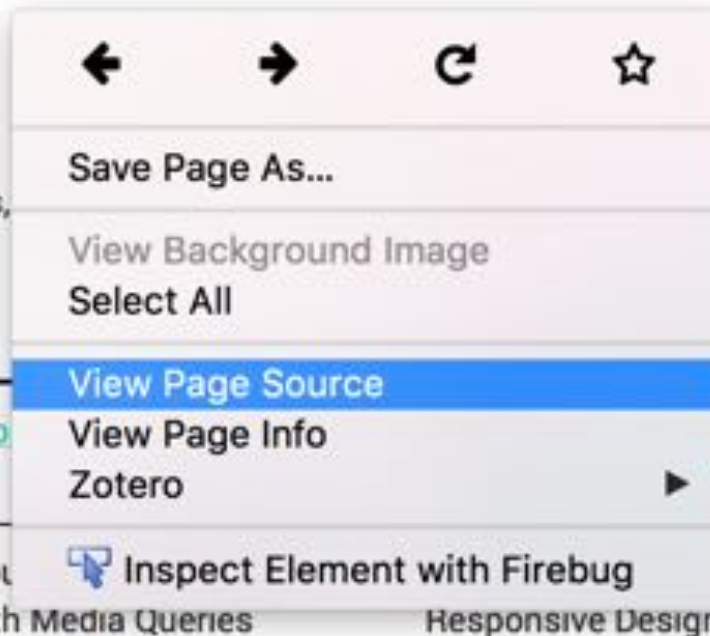
You can follow along in this tutorial or try things out later.

in a delicate situation and are unsure how to proceed, please contact myself or one of the TA assignment deadlines and we will help mediate.

## Schedule

All linked files (e.g., slides,

W	Date	Topics	Deliverables
1	May 9	<a href="#">Introduction</a> <a href="#">CSS(3)</a>	<a href="#">World (Wide Web)</a> <a href="#">with Github</a> NEW: <a href="#">CSS</a>
2	May 16	Page Layout Design with Media Queries	Development Tools; Responsive Design
3	May 23	Holiday: no classes	DUE: /



Note the URL:

view-

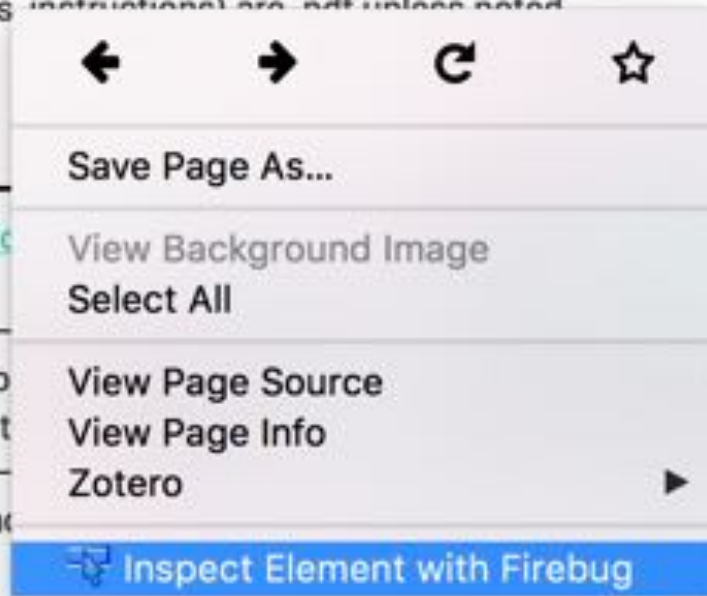
source: <http://www.cdf.toronto.edu/~csc309h/summer/#schedule>

```
1 <!doctype html>
2
3 <!--[if lt IE 7 ]> <html class="ie ie6 ie-lt10 ie-lt9 ie-lt8 ie-lt7 no-js" lang="en"> <![endif]-->
4 <!--[if IE 7 ]> <html class="ie ie7 ie-lt10 ie-lt9 ie-lt8 no-js" lang="en"> <![endif]-->
5 <!--[if IE 8 ]> <html class="ie ie8 ie-lt10 ie-lt9 no-js" lang="en"> <![endif]-->
6 <!--[if IE 9 ]> <html class="ie ie9 ie-lt10 no-js" lang="en"> <![endif]-->
7 <!--[if gt IE 9]><!--><html class="no-js" lang="en"><!--<![endif]-->
8
9 <head>
10
11 <meta charset="utf-8">
12
13 <!--
14 HTML5 Reset: https://github.com/murtaugh/HTML5-Reset
15 Free to use
16 -->
17
18 <!-- Always force latest IE rendering engine (even in intranet) -->
19 <meta http-equiv="X-UA-Compatible" content="IE=edge">
20
21 <title>CSC309 Programming on the Web (Summer 2016)</title>
22 <meta name="author" content="Katie Seaborn" />
23 <meta name="description" content="Course website for CSC309 Programming on the Web (Summer 2016)" />
24
25 <meta name="Copyright" content="Katie Seaborn" />
26
27 <!-- Mobile Viewport
28 http://j.mp/mobileviewport & http://davidcalhoun.com/2010/viewport-mettag
29 device-width : Occupy full width of the screen in its current orientation
30 initial-scale = 1.0 retains dimensions instead of zooming in if page height > device height
31 maximum-scale = 1.0 retains dimensions instead of zooming in if page width < device width (wrong)
32 -->
33 <meta name="viewport" content="width=device-width, initial-scale=1">
34
35 <link rel="shortcut icon" href="favicon.ico" />
36
37 <link href="https://fonts.googleapis.com/css?family=Roboto+Condensed:400,700&RRoboto:400" rel="stylesheet">
38
39 <!-- concatenate and minify for production -->
40 <link rel="stylesheet" href="assets/css/reset.css" />
41 <link rel="stylesheet" href="assets/css/style.css" />
42
43 <!-- Les Verou's prefixfree (http://leaverou.github.io/prefixfree/), lets you use un-prefixed properties
44 <script src="assets/js/libs/prefixfree.min.js"></script>
45
46 <!-- This is a minimized, base version of Modernizr. (http://modernizr.com)
47 You will need to create new builds to get the detects you need. -->
48 <script src="assets/js/libs/modernizr-3.2.0.base.js"></script>
49
50 </head>
51
```

## Schedule

All linked files (e.g., slides, instructions) are pdf unless noted

W	Date	Topics	Deliver
1	May 9	<a href="#">Introductory CSS(3)</a>	<a href="#">World (Wide Web) with Github</a> NEW: A CSS
2	May 16	Page Layout Design with	Development Tools;
3	May 23	Holiday; no	DUE: As 11:59p
4	May 30	HTML5 Canvas; JavaScript + jQuery	Tutorial 3: HTML5 Canvas NEW: A JavaSc



## NEW: Assignment 2: JavaScript + Canvas

## Tutorial 4: iQuery



**HTML** writes/marks up the DOM, which is rendered by the browser.

The **DOM** is a convention for representing and interacting with objects (elements).

The **DOM tree** is made up of **nodes** that are the elements that you've hierarchically written/marked up in the HTML document.

```

<!DOCTYPE html>
<html class="js -moz- " lang="en">
  <head>
  <body>
    <div class="wrapper">
      <div class="content">
        <header>
          <article id="general">
          <article id="intro">
          <article id="marking">
          <article id="policies">
          <article id="schedule">
            <h2>Schedule</h2>
            <p> All linked files (e.g., slides, instructions) are .pdf unless noted.
            <table id="table-schedule">
              <tbody>
                <tr>
                <tr>
                <tr>

```



GENERAL INFORMATION

INTRODUCTION & ORIENTATION

MARKING SCHEME

PHIZZIES

SCHEDULE

WEBSITE

peer and peer assessments. For assignments involving peer or self-assess, each student must privately be our own. Individually submit a self and peer assessment document through [Canvas](#). A template can be found [here](#).

**Conflicts:** Students are encouraged to resolve conflicts on their own wherever possible. However, if you find yourself in a delicate situation and are unsure how to proceed, please contact myself or one of the TAs well ahead of assignment deadlines and we will help mediate.

### Schedule

All linked files (e.g., slides, instructions) are pdf unless noted.

W	Date	Topics	Tutorial	Deliverables
1	May 9	Introduction: HTML, HTML5, CSS (2022)	Tutorial 1: Theme Maps (video feed) + Videos: Content with context	HW: Assignment 1: HTML, CSS
2	May 16	Page Layout, DOM, Responsive Design with Media Queries	Tutorial 2: Web Development Tools, Responsive Design	
3	May 23	Holiday: no classes		TUE: Assignment 1 (Web @ 11:54pm)
4	May 30	HTML5 Canvas; JavaScript + jQuery	Tutorial 3: HTML5 Canvas	HW: Assignment 2: JavaScript + Canvas
5	June 6	Node.js; AJAX; XML + JSON	Tutorial 4: jQuery	

HTML

CSS

Script

DOM

Net

Cookies

Search by text or CSS selector

Style

Computed

Layout

DOM

Events

td

tr

tbody

table#table-schedule

article#schedule

div.content

div.wrapper

b

```

<!DOCTYPE html>
<html class="js nojs" lang="en">
  <head>
    <body>
      <div class="wrapper">
        <div class="content">
          <header>
            <article id="general">
              <article id="intro">

```

\*, ::before, ::after {

box-sizing: inherit;

}

\*, ::before, ::after {

box-sizing: inherit;

}

td {

border-top: 1px solid #000;

#schedule #2 (line 3)

#schedule #2 (line 3)

#schedule #3 (line 11)

td < tr < tbody < table#table-schedule < article#schedule < div.content < div.wrapper < b

```

<html>
<!--js -moz- " lang="en">
</js>
<div class="wrapper">
  <div class="content">
    <header>
    <article id="general">
    <article id="intro">
    <article id="marking">
    <article id="policies">
    <article id="schedule">
      <h2>Schedule</h2>
      <p> All linked files (e.g., slides, instructions) are .pdf unless noted. </p>
      <table id="table-schedule">
        <tbody>
          <tr>
          <tr>
          <tr>
        </tbody>
      </table>
    </div>
  </div>
</div>

```

Style = Computed Layout DOM

```

*, ::before, ::after {
  box-sizing: inherit;
}

*, ::before, ::after {
  box-sizing: inherit;
}

.content {
  margin-left: 20%;
  width: 80%;
}

```

html. body. body div. span.

td < tr < tbody < table#table-schedule < article#schedule < div.content < div.wrapper < b

```

<html>
<!--js -moz- " lang="en">
</js>
<div class="wrapper">
  <div class="content">
    <header>
    <article id="general">
    <article id="intro">
    <article id="marking">
    <article id="policies">
    <article id="schedule">
      <h2>Schedule</h2>
      <p> All linked files (e.g., slides, instructions) are .pdf unless noted. </p>
      <table id="table-schedule">
        <tbody>
          <tr>
          <tr>
          <tr>
        </tbody>
      </table>
    </div>
  </div>
</div>

```

Style Computed Layout DOM Events

The diagram illustrates the box model for the selected element. It shows four nested rectangles: an outermost dashed line for the margin (208px), a solid gray border, a white padding area, and a central content area (832 x 3919px). Arrows indicate the extent of each layer.

position: static; display: block; box-sizing: border-box; z: auto

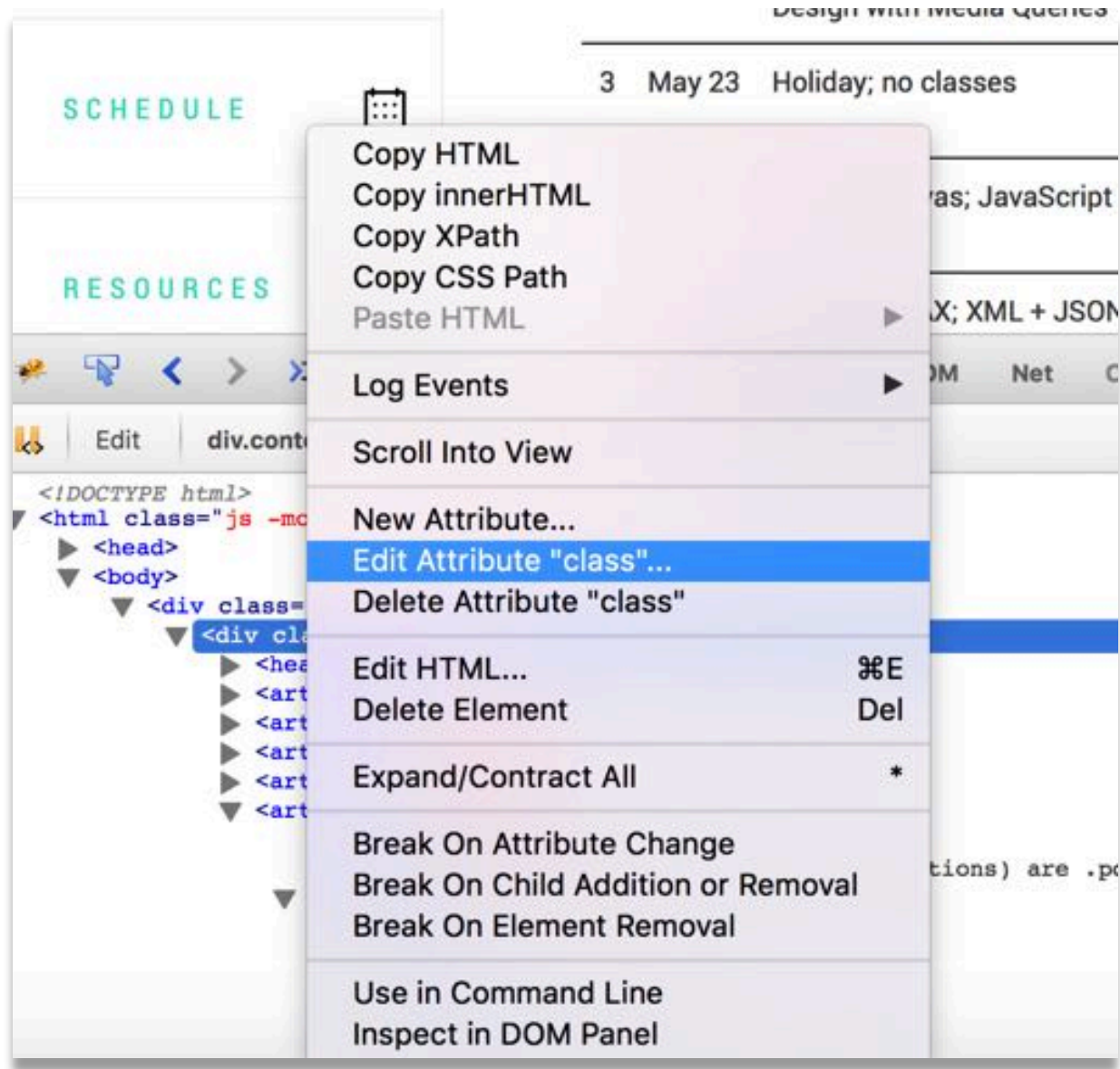
Rendered width/height can change on window resize if **unit** is relative, e.g. %.

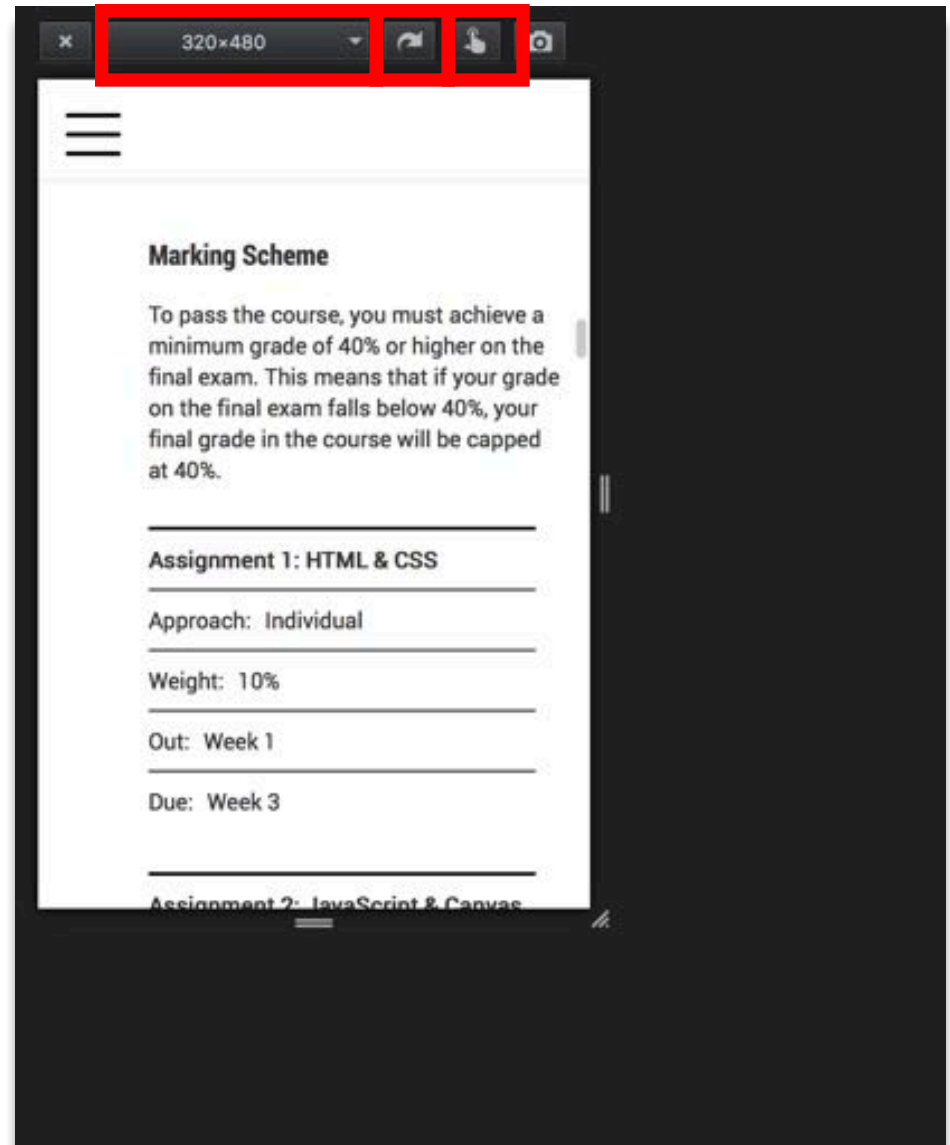
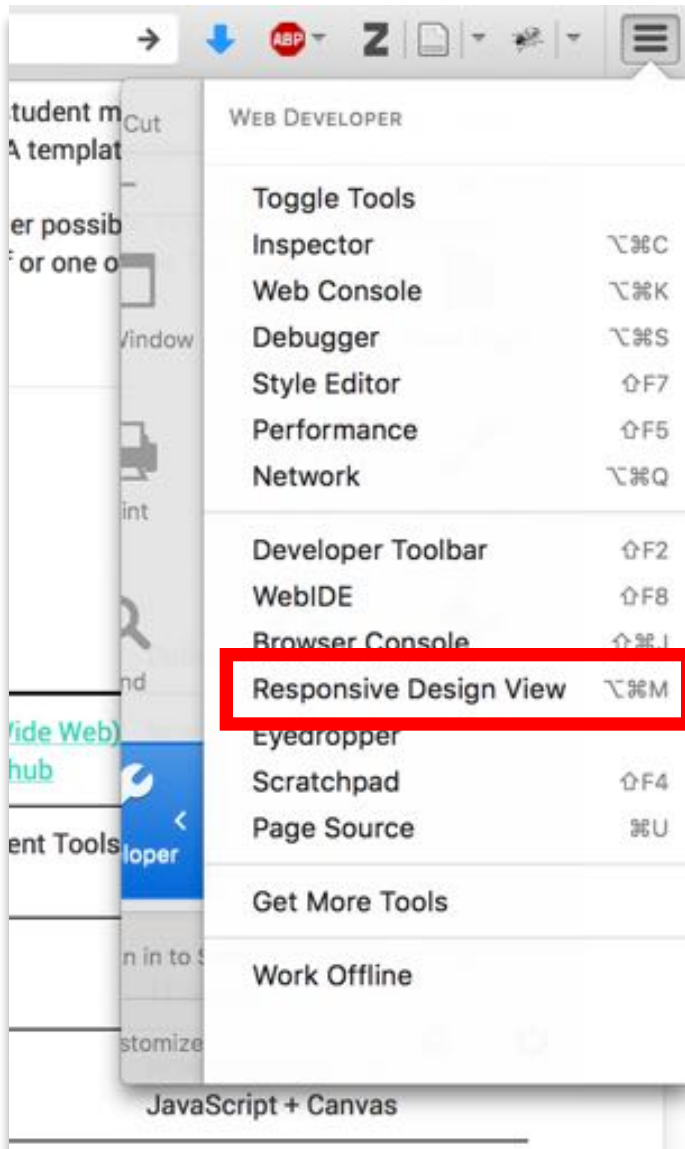
Different browsers may render the margins/paddings/border differently. Can use the CSS3 **box-sizing: border-box;** property to help with this.

```
/* Universal box-sizing with inheritance
*/
```

```
html {  
    box-sizing: border-box;  
}
```

```
*, *:before, *:after {  
    box-sizing: inherit;  
}
```





People use different browsers, so we should check across multiple browsers, particularly the **most common** ones.

**Try Chrome! Go to Menu > More Tools > Developer Tools** for a similar dev suite.

