

# WEEK 1 | DESIGN INTRODUCTION TO WEB DESIGN

Shawn Park & Jeff Zhan

{ } Web Design DeCal  
DESIGN MEETS PROGRAMMING



# Learning Objectives

- Learn how to make a website using HTML, CSS, and Javascript
- Learn key principles that make a website “beautiful”
- Meet and share passion with other students interested in web design

# Instructors



## Shawn Park

*Design Section*

- 3<sup>rd</sup> Year Computer Science Major
- From Ulsan, Korea
- Interests: UI Design and Entrepreneurship
- Hobbies: League of Legends & Kpop
- Currently working on a startup Iris



Berkeley Entrepreneurs...  
Your Journey Begins Here.

Players

Exchange



**Steph Lawrence & Aashi Vel**

Founders of Traveling Spoon

*Haas MBA, Class of 2013*



UC Berkeley CET



Center for Entrepreneurship and Technology



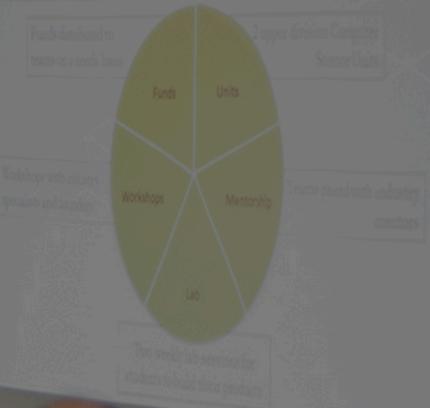
# FREE VENTURES

Giving UC Berkeley Students the Freedom to Dream, Build, and Innovate.

[Apply](#)

## FREE VENTURES' LAUNCHPAD PROGRAM

The Free Ventures program is designed to eliminate barriers to entry faced by student entrepreneurs.



Free Ventures

We are a startup launchpad for Berkeley students, providing resources and a framework to build ideas (for products or services) into companies

## About Us



A screenshot of a web browser window displaying search results for "css3 web design". The results page features a large watermark reading "Web Design" in the center. The browser interface includes a top navigation bar with tabs like "Sites", "File", "Edit", "View", "Search", and "Preview". Below the navigation is a search bar containing the query. The main content area shows several search results, each with a title, a snippet of text, and a link. One result highlights "CSS3 Web Design: A Complete Guide". Other results mention "CSS3 for Web Designers", "CSS3: The Definitive Guide", and "CSS3: Layouts, Animations, Transitions, and Effects". The right side of the browser shows a sidebar with user account information and a list of recent or favorite sites.

[Latest](#)      [Popular](#)      [Trending](#)

# Web Design for Startups

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad min...



**Shawn Park** 3 hours ago

118 Views



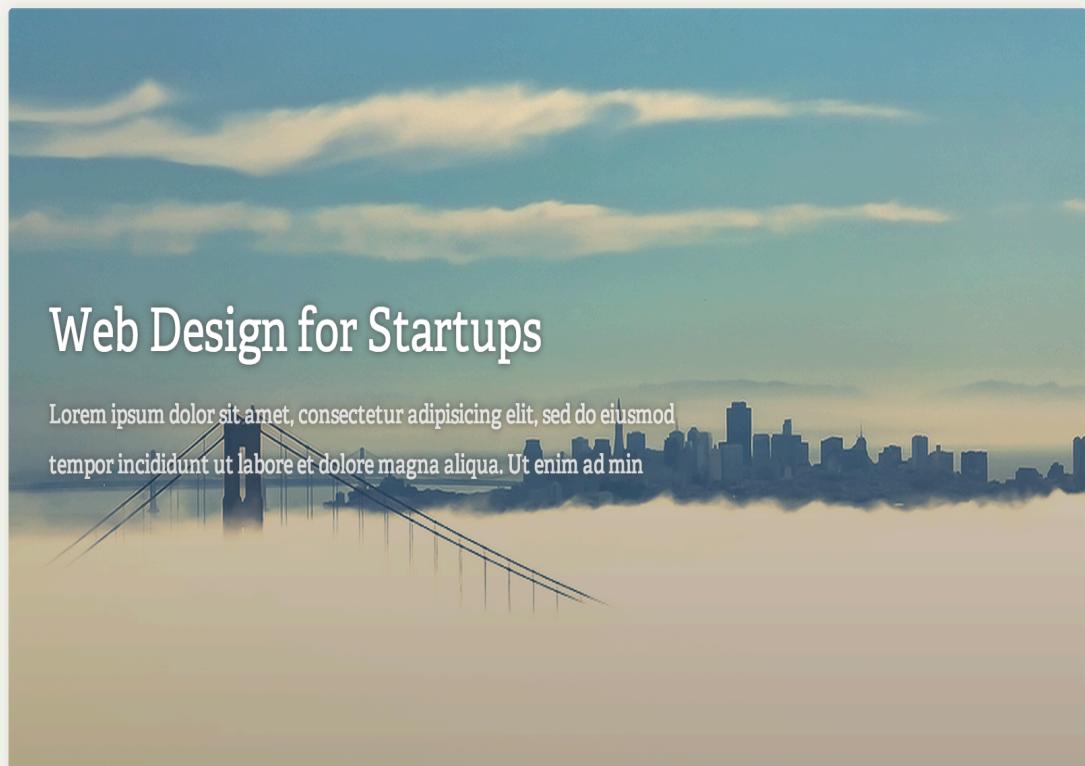
# Web Design for Startups

Irish: A community  
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**Shawn Park** 3 hours ago

118 Views



By Shawn Park, Nov. 26 2013

**My Personal vision is to connect like-minded people.**

We all have many different interests. Meeting people with similar interests can help us make new friends.

exchanging ideas about our interests is one of the greatest joys in life. However

actually finding these people is quite difficult. We would often post on our blogs or

# Instructors



**Jeff Zhan**  
*Programming Section*

- 4<sup>th</sup> Year EECS Major
- From Columbus, OH
- Interests: Graphic Design and Web Dev
- Hobbies: Working out, Drawing, Traveling
- Worked at CloverInk and TubeMogul



Home Register

Contact | Log In



bring your resume to life.

Login

Sign Up

Cloverink



# Teaching Assistants



Adam Sebti



Andy Qin



Ingrid Hong



Philip Su



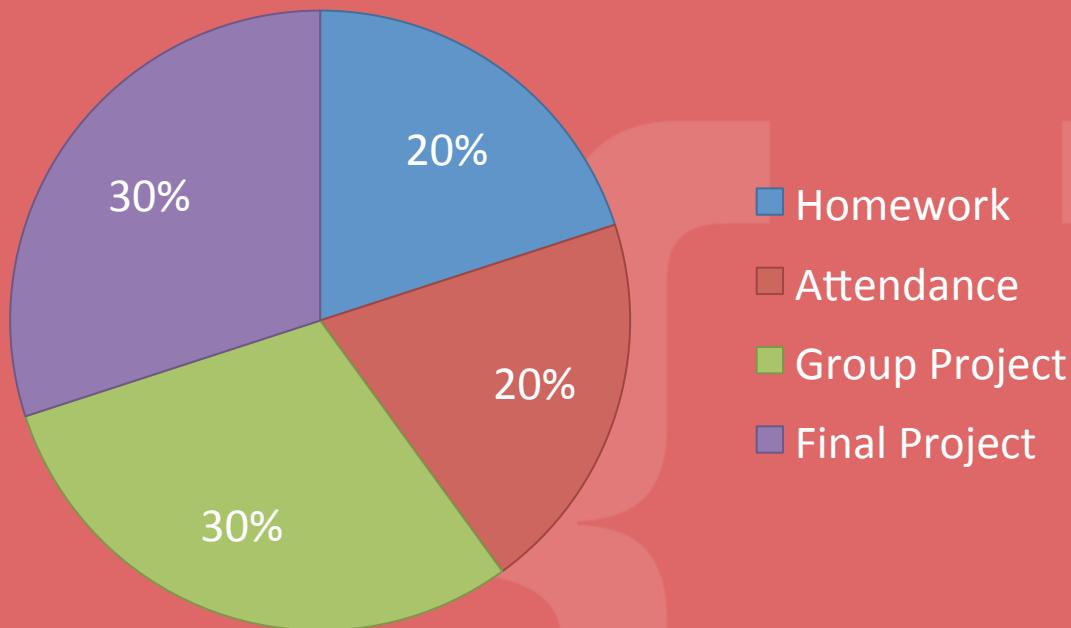
Sarah Kim



# Class Logistics

- Tuesday 7P– 9P @ 60 Evans
  - 7P – 8P: Programming Section
  - 8P – 9P: Design Section
  - The order is reversed for first two weeks only
- Programming Section: Learn how to make a website
- Design Section: Learn how to make a website beautiful
- 2 Units DeCal: P/NP
- Lower division and Upper division credits offered

# Grading



You must earn above 70 in order to receive a passing grade.

You will lose 5 points from total grade for each missing attendance

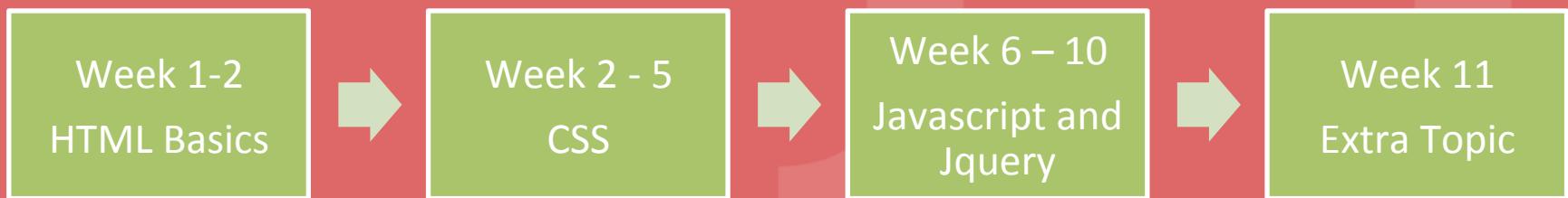


# Need Help?

- Ask questions on Piazza
  - CS 98/198 – 32: Web Design DeCal
  - We will try to answer your questions within 24 hours
  - Please screenshots of the web page so that we can understand your problem better
  - Please do NOT post screenshots or snippets of actual code
- Office Hours (yes, office hours for a DeCal)
  - 2 – 4PM @ Free Speech Movement Café (next to Moffitt)

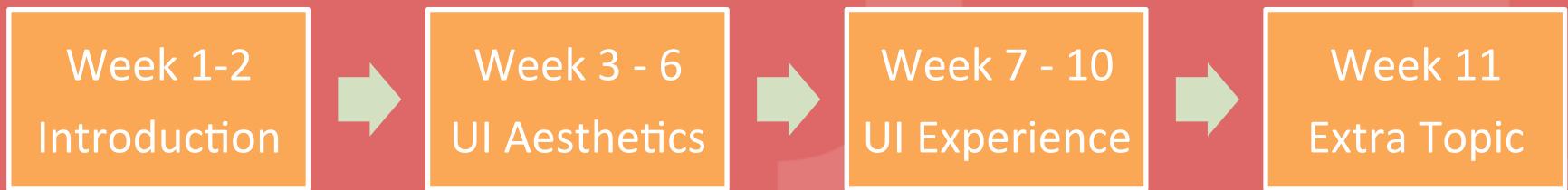


# Class Timeline: Programming





# Class Timeline: Design





# Questions?

# Why learn Web Design?

- So many use cases
  - Personal Portfolio
  - Web Application
  - Event Promotion
- Essentially your online identity
- Best place to start learning programming & design
  - Low barrier to entry compared to other programming languages
  - Quick to implement & iterate in terms of design
- Design = First Impression

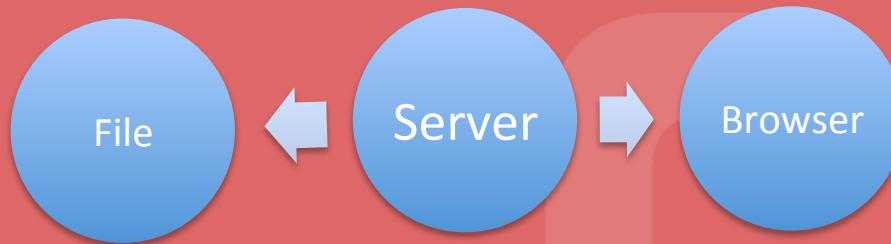


# What is a Web Site?

- A set of web pages served from a single domain
- A web page is a document, usually in HTML files
- A domain is an address (<http://www.thewebdesignworkshop.co>) that represents a server where the files are located.

# How Websites are shown

Example: <http://www.thewebdesignworkshop.co>



- 1. A user types in the address (<http://www.thewebdesignworkshop.co>)
- 2. The browser looks up the address, which points to a server *somewhere* in the world. (In this case, we use a WebFaction server located in Los Angeles, CA.)
- 3. The browser loads all of the required file: an HTML file might (usually) require more than one files.

# Getting a Server to host your web pages

- Technically, your computer can be a web server.
- Ex.: Designate a folder to be accessible by the public
- Why Not? 1. Security 2. Consistency
- Preferred Solution: Get a web hosting service (Ex. WebFaction, AWS)
- *Web Hosting Service* provides you with a “space” within their server that you can use.
- For this class, you can simply develop on your computer without a server (Development on *Local*)

# What Websites are made of

## Front-end

- What users can “see”
- Ex. Buttons, Images, Text

## Back-end

- What users can’t “see”
- Ex. Algorithms behind Logins, Search, etc.

# What Websites are made of

## HTML

- Structure
- = Skeleton

## CSS

- Design
- = Clothes

## Javascript

- Function
- = Muscle



# HTML provides the structure of a page

*A well-written HTML document should be  
“understandable” without a stylesheet.*

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
    <meta http-equiv="content-type" content="text/html; charset=utf-8" />
    <link rel="stylesheet" type="text/css" href="assets/style.css" />
    <script type="text/javascript" src="assets/jquery-1.8.3.min.js" charset="utf-8"></script>
    <script src="assets/jquery-ui-1.9.2.min.js"></script>
    <script type="text/javascript" src="assets/script.js" charset="utf-8"></script>
    <title>THE WEB DESIGN WORKSHOP</title>
<body>
    <div id="menu">
        <div id="menu_icon">
            
        </div>
        <div id="menu_strip_container">
            <div id="menu_strip">
                <a href="index.html"><div class="menu_item" style="margin-left: 35px;">About</div></a>
                <a href="lectures.html"><div class="menu_item">Lectures</div></a>
                <a href="gradebook.html"><div class="menu_item">Gradebook</div></a>
                <a href="showcase.html"><div class="menu_item">Showcase</div></a>
                <div class="clear"></div>
            </div>
        </div>
    </div>
    <div id="cover">
        <div id="cover_bg"></div>
        <div id="cover_hero_container">
            <div id="cover_hero">
                <div id="cover_hero_title">The Web Design Workshop</div>
                <div id="cover_hero_subtitle">DeCal Fall 2013</div>
            </div>
        </div>
        <div id="cover_overlay"></div>
    </div>
    <div id="content">
        <div id="content_title_container">
            <div id="content_title">About Classs</div>
```



# CSS provides the design of a page

*Just several lines of “code” is enough to create “design” – shapes, color, buttons, you name it.*

```
body { /*the outer layer of the site and global style attributes*/
font-family: "Museo Sans", "Helvetica Neue", Helvetica, Arial, sans-serif;
margin: 0px;
}

a {
color: inherit;
text-decoration: none;
}

.clear {
clear: both;
}

.img_scaled {
width: 100%;
}

.img_scaled_wh {
width: 100%;
height: 100%;
}

.img_scaled_h {
height: 100%;
}

#logo {
height: 50px;
float: left;
}
#header_container {
position: absolute;
height: 80px;
width: 100%;
z-index: 100;
}
#header {
```

Menu



[About](#)



Lectures

Build your own website. A sexy one.

Web Design DeCal is a 2-unit DeCal for students who want to make a beautiful website.

Students will be introduced to various design philosophies in web design, including spacing, color, and positioning, which are essential to designing a beautiful and intuitive websites. We will also cover modern design trends like responsive design, flat UI, and skeumorphism. Using these philosophies, students will learn how to make a website using HTML 5 and CSS 3. We will cover Javascript and JQuery at the end of the course to make dynamic elements.

Gradebook

It is important to note that this course is a design only course - meaning we will not cover the server-side details like Django and PHP. By the end of the course, you will be able to design a website like those featured on Siteinspire. (<http://www.siteinspire.com>)



[Piazza](#)

W<sup>ekload</sup>  
2 L<sup>ectures</sup>

Web Design DeCal



Time

The screenshot shows a web development environment with the following details:

- Top Bar:** Includes icons for file operations (New, Open, Save, etc.), a "CSS" icon, and an "HTML" icon.
- Left Sidebar:** Shows a tree view of the site structure: Roka > Documents > TWDW > new\_site > index.html > Preview.
- Preview Area:** Displays the website's content. The main title is "Web Design DeCal" with the subtitle "Design Meets Programming." Below the title is a button labeled "Week 1 Check-in".
- Code View:** The left side of the interface shows the HTML and CSS code for the page. The HTML includes imports for jQuery and its UI library, and defines sections for the cover and content areas. The CSS section is partially visible.
- Right Sidebar:** Contains several sections:
  - Right Sidebar:** A template for the right sidebar section.
  - Right Sidebar - CSS:** A template for the right sidebar's CSS.
  - RightList:** A template for a list of items.
  - Head Toolbar:** A template for the head toolbar.
  - Addbox JS:** A template for an addbox's JavaScript.
  - Addbox PHP:** A template for an addbox's PHP code.



Web Design DeCal



About Class



Curriculum



Schedule



Instructors

## Build your own website. A sexy one.

Web Design DeCal is a 2-unit DeCal for students who want to make a beautiful website.

Students will be introduced to various design philosophies in web design, including spacing, color, and positioning, which are



Search for people, places and things



Home Shawn 🔒 ⚙



Tuhina Das was tagged in Sooln Yoon's photos. — with Kin Yi Tsui and 8 others in Hong Kong, Hong Kong.



37 minutes ago · \*



Eunyoung Lee shared 아웃겨ㅋㅋ's photo.

내가 집에 동물을 안키우는 이유



### OnStartups

Do you like startups? Click the like button below and get free tips and insights on startups.

Like · Minsu Daniel Kim and Zhibai Han like OnStartups.

### Bethsarim Van Koetsveld



Build your list & drive sales – Get your click provoking website header today! I can help.

Like · 115 people like Bethsarim van Koetsveld.

### Organize for Action

barackobama.com



Join millions at OFA and support President Obama's national agenda. Are you in?

### Builders all tied up?



Are you stuck? Unable to upgrade your army? Move faster in Dojo Mojo. Play now, free!



Tuhina Das was tagged in Sooln Yoon's photo. — with Xiao Li in Hong Kong, Hong Kong.



Michael Kang added a new photo to the album Mobile Uploads.



James Chi likes Brenda Yee's post in Free & For Sale.



Jian Chang likes Patrick Vith's status.



Makai Cartman likes Breaking Bad's photo.



Do Yeob David Hyun commented on ELO HELL's photo: "TIME TO FIST"



James Chi



Jiny Her



Louis J. Kang



Andy He



Kathy Khuu



Jeff Zhan



Hyun-Ho Hayden Jung



Eddie Lee



Brennan Lee



Maritza Gonzalez Tellez



Patrick Ou

MORE FRIENDS (26)



Alex Wang

Search



# Facebook

- 0 Requests

## Friend Requests

[Find Friends](#) · [Settings](#)

## Friend Requests



[See All](#)

0 Messages

## Messages;

[Send a New Message](#)

[Inbox\(3\)](#)[Other\(12\)](#)



- 



[Team Ego](#)

You sent a sticker.

11:02pm



- 

[Elmer Almeida](#)

Native: Eclipse

9:46pm



- 

[Rachit Nanda](#)

Rachit sent a photo.



# JS provides the function of a page

*What will happen to the website with Javascript disabled?*

```
$(document).ready(function(){

  $('.about_instructors_item').hover(function(){
    $(this).children('.about_instructors_cover').animate({'margin-top': '-400px'});
  }, function(){
    $(this).children('.about_instructors_cover').animate({'margin-top': '0px'});
  });

  $(window).scroll(function(){
    if ($(window).scrollTop() <= 0){
      $('#menu_strip').css({'margin-left': '0px'});
    } else {
      $('#menu_strip').css({'margin-left': '-400px'});
    }
  });

  $('#menu').hover(function(){
    $('#menu_strip').css({'margin-left': '0px'});
  }, function(){
    if ($(window).scrollTop() > 0){
      $('#menu_strip').css({'margin-left': '-400px'});
    }
  });

  $('.showcase_nav_item').hover(function(){
    if ($(this).attr('id') == 'showcase_wow') {
      $('#showcase_nav_item_active').css({'left': '0%'});
    } else {
      $('#showcase_nav_item_active').css({'left': '50%'});
    }
    return false;
  }, function(){
    if ($(this).hasClass('showcase_nav_item_toggled')){
      return false;
    }
    else if ($(this).attr('id') == 'showcase_wow') {
      $('#showcase_nav_item_active').css({'left': '50%'});
    } else {
      $('#showcase_nav_item_active').css({'left': '0%'});
    }
  });
});
```



# How do I make a Website?

## Web Browser

- Chrome
- Firefox
- Safari

## Code Editor

- Coda 2
- Sublime Text
- Dreamweaver

## Image Editor (Optional)

- Adobe Photoshop



# UI Design Workflow



- Code up the structure in a code editor
- Stylize the website using the Web Inspector
- Add the missing functionality in the code editor

```
2733     font-weight: 300;
2734 }
2735 .userPopover_info_item_caption {
2736     font-size: 10px;
2737     font-weight: 700;
2738     color: #757c78;
2739     margin-top: 1px;
2740 }
2741 .userPopover_follow_icon {
2742     width: 12px;
2743     float: left;
2744 }
2745 .userPopover_follow_caption {
2746     float: left;
2747     color: white;
2748     font-size: 12px;
2749     font-weight: 700;
2750     line-height: 12px;
2751     margin-left: 8px;
2752 }
2753 .userPopover_follow {
2754     padding: 8px 13px;
2755     background: rgba(0, 0, 0, 0.5);
2756     float: right;
2757     border-radius: 2px;
2758     margin-top: 15px;
2759 }
2760
2761 /* Auxiliary */
2762
2763 .nomargin {
2764     margin: 0px;
2765 }
2766 .noborder {
2767     border: none;
2768 }
```

Do I really have to manually type out 2000 lines of CSS?



# Web Inspector to the rescue!

- Allows you to test your designs in-browser
  - You can write out CSS rules and see how it looks live
  - No need to save a file, reload, etc.
- Allows you to learn from other people's work
- Other functionalities (for front-end) include:
  - Autocomplete for CSS rules
  - Color Picker
  - Browser Compatibility Test
  - JS Debugger
  - 3D View (Firefox)

# THE WEB DESIGN WORKSHOP

DECAL FALL 2013

- Back
- Forward
- Reload
- Save As...
- Print...
- Translate to English
- View Page Source
- View Page Info

Inspect Element

ABOUT CLASS

The Web Design workshop is a 2 Unit DeCal in Berkeley.

How to open up Web Inspector

It is designed for both students with or without

The selected element is highlighted as Web Inspector opens

workshop.co

arallax Scr Facebook Friends Facebook Friends Facebook Friends Cult Creation Amazon API The Noun Project Speed up SQL Server Other

LECTURES GRADEBOOK SHOWCASE

Developer Tools - http://www.thewebdesignworkshop.co/

Elements Resources Network Sources Timeline Profiles Audits Console

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
  <head>...</head>
  <body>
    <div id="menu">...</div>
    <div id="cover">
      <div id="cover_bg">...</div>
      <div id="cover_hero_container">...</div>
      <div id="cover_overlay"></div>
    </div>
    <div id="content">...</div>
    <div id="modal">...</div>
    <div id="window-resizer-tooltip">...</div>
  </body>
</html>
```

► Computed Style  Show inherited

▼ Styles +

```
element.style { }
```

Matched CSS Rules

```
#cover_overlay { style.css:75
  position: absolute;
  width: 100%;
  height: 100%;
  top: 0;
  left: 0;
  background: url(/icons/texture_square.s...
```

div { user agent stylesheet
 display: block;
}

Inherited from body

```
body { style.css:1
  font-family: "Museo Sans",
  "Open Sans", "Helvetica
  Neue", Helvetica, Arial,
  sans-serif;
}
```

► Metrics

► Properties

► DOM Breakpoints

► Event Listeners

Elements Resources Network Sources Timeline Profiles Audits Console

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
  <head>...</head>
  <body>
    <div id="menu">...</div>
    <div id="cover">
      <div id="cover_bg">...</div>
      <div id="cover_hero_container">...</div>
      <div id="cover_overlay"></div>
    </div>
    <div id="content">...</div>
    <div id="modal">...</div>
    <div id="window-resizer-tooltip">...</div>
  </body>
</html>
```

## Selected Element

### ► Computed Style

#### ▼ Styles

```
element.style {  
}
```

#### Matched CSS Rules

```
#cover_overlay {  
  position: absolute;  
  width: 100%;  
  height: 100%;  
  top: 0;  
  left: 0;  
  background: url(icons/texture\_square.svg);  
}
```

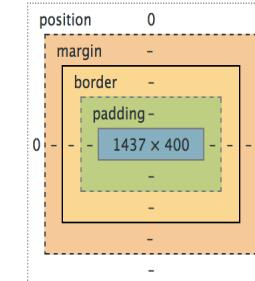
style.css:75  
user agent stylesheet

```
div {  
  display: block;  
}
```

#### Inherited from body

```
body {  
  font-family: "Museo Sans", "Open Sans", "Helvetica Neue", Helvetica, Arial, sans-serif;  
}
```

#### ▼ Metrics



## Metrics

### ► Properties

### ► DOM Breakpoints

### ► Event Listeners

Elements Tab of the Web Inspector  
A place for editing web site design on the fly



You will spend as much time on the Web Inspector as you will on the code editor

*Try out the code on the Web Inspector before you write it on the Code Editor – It will save you tons of time*

# Web Inspector Workflow

Open up the Web inspector using “Inspect Element”



Find the element you want to edit, and enter new CSS rules



Fiddle around until it looks good



Take the final code to the Code Editor



# A Few Caveats about Web Inspector

- Changes you made in web inspector are NOT saved automatically
- Must make sure changes are saved manually by:
  - Going to Resources Tab -> Find your CSS file and copy paste all the code to your CSS file (overwrite)
  - Going to Resources Tab -> Find inspector-style.css and copy paste all the code to your CSS file (append to end)



More on the Web Inspector next week!

# Helpful Resources

- Websites to learn web programming
  - W3Schools (<http://www.w3schools.com>)
  - Mozilla WebMaker (<http://webmaker.org>)
- Web Design Showcase
  - Siteinspire (<http://www.siteinspire.com>)
  - Inspire My Web (<http://blog.marlonmarcello.com>)
- Google and Stack Overflow is your biggest (and the best) resource!
  - If you have any questions, simply search on Google, and you will find an answer 90% of the time
  - Ex. “How to stack elements horizontally HTML”



# For next class (Design)

- Introduction to Design Cycle: Prototype, Design, Iterate
- Fundamental Rule of UI Design Aesthetics: Emphasis