

# Schedule

A week-by-week breakdown of the material.

## Week 1 (01/05-01/09)

- Day 1
  - History of Javascript<sup>1</sup>
  - Components of a Web Page<sup>2</sup>
  - How to run Javascript<sup>3</sup>
  - Numbers in Javascript<sup>4</sup>
  - Assignment 1<sup>5</sup>
- Day 2
  - Local and Global Variables<sup>6</sup>
  - Basics of Arrays<sup>7</sup>
  - Assignment 2<sup>8</sup>
- Day 3
  - Basics of Objects<sup>9</sup>
  - Strings and Regular Expressions<sup>10</sup>
- Day 4
  - Function basics<sup>11</sup>
  - Assignment 3<sup>12</sup>
  - Basics of Version Control<sup>13</sup>
  - Git basics<sup>14</sup>
  - Review of Git commands<sup>15</sup>

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<sup>1</sup>[notes/history.html](#)

<sup>2</sup>[notes/page\\_components.html](#)

<sup>3</sup>[notes/how\\_to\\_run.html](#)

<sup>4</sup>[notes/numbers.html](#)

<sup>5</sup>[assignments/1.html](#)

<sup>6</sup>[notes/local\\_vs\\_global.html](#)

<sup>7</sup>[notes/array\\_basics.html](#)

<sup>8</sup>[assignments/2.html](#)

<sup>9</sup>[notes/object\\_basics.html](#)

<sup>10</sup>[notes/strings\\_and\\_re.html](#)

<sup>11</sup>[notes/functions\\_basic.html](#)

<sup>12</sup>[assignments/3.html](#)

<sup>13</sup>[notes/git\\_version\\_control.html](#)

<sup>14</sup>[notes/git\\_basics.html](#)

<sup>15</sup>[notes/git\\_commands\\_review.html](#)

## Week 2 (01/12-01/16)

- Day 1
  - GitHub basics<sup>16</sup>
  - Remotes and Branches<sup>17</sup>
  - GitHub Workflow<sup>18</sup>
  - Overall Project Workflow<sup>19</sup>
  - Lab 1: Getting used to the basics<sup>20</sup>
- Day 2
  - Functions as values<sup>21</sup>
  - Functions as closures<sup>22</sup>
  - Assignment 4<sup>23</sup>
- Day 3
  - Functions as a means for creating a scope/context<sup>24</sup>
  - Array Collection methods<sup>25</sup>
  - Assignment 5<sup>26</sup>
- Day 4
  - Some tricks using functions<sup>27</sup>
  - Functions created in loops<sup>28</sup>
  - Methods in objects. Using this<sup>29</sup>
  - Object creation forms. Prototypes<sup>30</sup>
  - Assignment 6<sup>31</sup>
  - Writing tests<sup>32</sup>
  - Lab 2: Node, Testing<sup>33</sup>

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<sup>16</sup>[notes/github\\_basics.html](#)

<sup>17</sup>[notes/git\\_remotes\\_branches.html](#)

<sup>18</sup>[notes/github\\_workflow.html](#)

<sup>19</sup>[notes/project\\_workflow.html](#)

<sup>20</sup>[labs/1.html](#)

<sup>21</sup>[notes/function\\_values.html](#)

<sup>22</sup>[notes/function\\_closures.html](#)

<sup>23</sup>[assignments/4.html](#)

<sup>24</sup>[notes/functions\\_for\\_scope.html](#)

<sup>25</sup>[notes/array\\_collection\\_methods.html](#)

<sup>26</sup>[assignments/5.html](#)

<sup>27</sup>[notes/function\\_tricks.html](#)

<sup>28</sup>[notes/functions\\_in\\_loops.html](#)

<sup>29</sup>[notes/object\\_methods.html](#)

<sup>30</sup>[notes/object\\_creation\\_prototypes.html](#)

<sup>31</sup>[assignments/6.html](#)

<sup>32</sup>[notes/test\\_writing.html](#)

<sup>33</sup>[labs/2.html](#)

## Week 3 (01/19-01/23)

- Day 1
  - Different stack implementations<sup>34</sup>
  - Function call forms and the value of this<sup>35</sup>
  - Introduction to the concept of Design Patterns<sup>36</sup>
- Day 2
  - Creation Patterns: Constructor<sup>37</sup>
  - Creation Patterns: Singleton<sup>38</sup>
  - Creation Patterns: Mixins<sup>39</sup>
  - Assignment 7<sup>40</sup>
- Day 3
  - Introduction to the DOM (Document Object Model)<sup>41</sup>
  - Manipulating the DOM tree<sup>42</sup>
  - Assignment 8<sup>43</sup>
- Day 4
  - Data Structures in Javascript<sup>44</sup>
  - Lab 3: Union/Find, Sets<sup>45</sup>

## Week 4 (01/26-01/30)

- Day 1
  - Introduction to DOM Events<sup>46</sup>
  - Bubbling of Events<sup>47</sup>
  - Assignment 9<sup>48</sup>
- Day 2

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<sup>34</sup>[notes/stack\\_various.html](#)

<sup>35</sup>[notes/function\\_calls\\_and\\_this.html](#)

<sup>36</sup>[notes/design\\_patterns.html](#)

<sup>37</sup>[notes/pattern\\_constructor.html](#)

<sup>38</sup>[notes/pattern\\_singleton.html](#)

<sup>39</sup>[notes/pattern\\_mixin.html](#)

<sup>40</sup>[assignments/7.html](#)

<sup>41</sup>[notes/dom\\_intro.html](#)

<sup>42</sup>[notes/dom\\_tree.html](#)

<sup>43</sup>[assignments/8.html](#)

<sup>44</sup>[notes/data\\_structures.html](#)

<sup>45</sup>[labs/3.html](#)

<sup>46</sup>[notes/event\\_intro.html](#)

<sup>47</sup>[notes/event\\_bubbling.html](#)

<sup>48</sup>[assignments/9.html](#)

- Timers<sup>49</sup>
  - Function idiom: Throttling<sup>50</sup>
  - Assignment 10<sup>51</sup>
- Day 3
  - A custom Event module<sup>52</sup>
- Day 4
  - Lab 4: Starting on a TODOapp<sup>53</sup>

## Week 5 (02/02-02/06)

- Day 1
  - Behavioral Patterns: Observer<sup>54</sup>
  - Behavioral Patterns: Publish/Subscribe<sup>55</sup>
- Day 2
  - Implementation of Publish/Subscribe<sup>56</sup>
  - Behavioral Patterns: Mediator<sup>57</sup>
  - Assignment 11<sup>58</sup>
- Day 3
  - Introduction to jQuery<sup>59</sup>
- Day 4
  - Lab 5: Continued work on TODOapp<sup>60</sup>

## Week 6 (02/09-02/13)

- Day 1
  - Architectural Patterns: Model-View-Controller<sup>61</sup>
- Day 2
  - Implementing a basic MVC<sup>62</sup>

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<sup>49</sup>[notes/event\\_timers.html](#)

<sup>50</sup>[notes/function\\_throttling.html](#)

<sup>51</sup>[assignments/10.html](#)

<sup>52</sup>[notes/event\\_custom.html](#)

<sup>53</sup>[labs/4.html](#)

<sup>54</sup>[notes/pattern\\_observer.html](#)

<sup>55</sup>[notes/pattern\\_pubsub.html](#)

<sup>56</sup>[notes/pubsub\\_implementation.html](#)

<sup>57</sup>[notes/pattern\\_mediator.html](#)

<sup>58</sup>[assignments/11.html](#)

<sup>59</sup>[notes/jquery\\_intro.html](#)

<sup>60</sup>[labs/5.html](#)

<sup>61</sup>[notes/pattern\\_mvc.html](#)

<sup>62</sup>[notes/mvc\\_implement.html](#)

- Day 3
  - Introduction to Backbone<sup>63</sup>
  - Assignment 12<sup>64</sup>
- Day 4
  - Lab 6: Incorporating MVC in TODOapp<sup>65</sup>

## Week 7 (02/16-02/20)

- Day 1
  - Introduction to XMLHttpRequest<sup>66</sup>
- Day 2
  - Ajax via jQuery<sup>67</sup>
- Day 3
- Day 4
  - Lab 7: Introducing data persistence in TODOapp<sup>68</sup>

## Week 8 (02/23-02/27)

BREAK

## Week 9 (03/02-03/06)

- Day 1
  - Testing with Stubs, Mocks and Spies<sup>69</sup>
- Day 2
  - Module Patterns: Node modules<sup>70</sup>
- Day 3
  - Module Patterns: AMD modules<sup>71</sup>
- Day 4
  - Project proposals

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<sup>63</sup>[notes/backbone.html](#)

<sup>64</sup>[assignments/12.html](#)

<sup>65</sup>[labs/6.html](#)

<sup>66</sup>[notes/xhr\\_intro.html](#)

<sup>67</sup>[notes/xhr\\_jquery.html](#)

<sup>68</sup>[labs/7.html](#)

<sup>69</sup>[notes/test\\_stubs.html](#)

<sup>70</sup>[notes/pattern\\_module.html](#)

<sup>71</sup>[notes/pattern\\_amd.html](#)

## Week 10 (03/09-03/13)

- Day 1
  - Project structure<sup>72</sup>
- Day 2
  - Survey of HTML elements<sup>73</sup>
- Day 3
  - Survey of CSS features<sup>74</sup>
- Day 4
  - Lab 8:<sup>75</sup>

## Week 11 (03/16-03/20)

- Day 1
  - Using Templates: Handlebars<sup>76</sup>
- Day 2
  - Deeper look into Javascript objects<sup>77</sup>
- Day 3
  - Structural Patterns: Facade<sup>78</sup>
  - Structural Patterns: Proxy<sup>79</sup>
- Day 4
  - Work on project

## Week 12 (03/23-03/27)

- Day 1
  - Introduction to Promises<sup>80</sup>
- Day 2

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<sup>72</sup>[notes/project.html](#)

<sup>73</sup>[notes/html\\_survey.html](#)

<sup>74</sup>[notes/css\\_survey.html](#)

<sup>75</sup>[labs/8.html](#)

<sup>76</sup>[notes/templates.html](#)

<sup>77</sup>[notes/object\\_deeper.html](#)

<sup>78</sup>[notes/pattern\\_facade.html](#)

<sup>79</sup>[notes/pattern\\_proxy.html](#)

<sup>80</sup>[notes/promises.html](#)

- More advanced testing
- Day 3
  - More advanced testing
- Day 4
  - First project submission

### **Week 13 (03/30-04/03)**

- Day 1
- Day 2
- Day 3
- Day 4

### **Week 14 (04/06-04/10)**

- Day 1
- Day 2
- Day 3
- Day 4