Schedule

A week-by-week breakdown of the material.

Week 1 (01/05-01/09)

- Day 1
 - History of Javascript¹
 - Components of a Web Page²
 - How to run Javascript³
 - Numbers in Javascript⁴
 - Assignment 1⁵
- Day 2
 - Local and Global Variables⁶
 - Basics of Arrays⁷
 - Assignment 2⁸
- Day 3
 - Basics of Objects⁹
 - Strings and Regular Expressions¹⁰
- Day 4
 - Function basics¹¹
 - Assignment 3¹²
 - Basics of Version Control¹³
 - Git basics¹⁴
 - Review of Git commands¹⁵

¹notes/history.html

²notes/page_components.html

³notes/how_to_run.html

⁴notes/numbers.html

⁵assignments/1.html

⁶notes/local_vs_global.html

⁷notes/array_basics.html

⁸assignments/2.html

⁹notes/object_basics.html

¹⁰notes/strings_and_re.html

¹¹notes/functions_basic.html

¹²assignments/3.html

¹³notes/git_version_control.html

¹⁴notes/git_basics.html

¹⁵notes/git_commands_review.html

Week 2 (01/12-01/16)

- Day 1
 - GitHub basics¹⁶
 - Remotes and Branches¹⁷
 - GitHub Workflow¹⁸
 - Overall Project Workflow¹⁹
 - Lab 1: Getting used to the basics²⁰
- Day 2
 - Functions as values²¹
 - Functions as closures²²
 - Assignment 4²³
- Day 3
 - Functions as a means for creating a scope/context²⁴
 - Array Collection methods²⁵
 - Assignment 5²⁶
- Day 4
 - Function Usage Patterns²⁷
 - Methods in objects and the need for this ²⁸

Week 3 (01/19-01/23)

- Day 1
 - Function call forms and the value of this ²⁹
 - Object creation and prototypes³⁰
- Day 2

¹⁶notes/github_basics.html

¹⁷notes/git_remotes_branches.html

¹⁸notes/github_workflow.html

¹⁹notes/project_workflow.html

²⁰labs/1.html

²¹notes/function_values.html

 $^{^{22}}$ notes/function_closures.html

²³assignments/4.html

²⁴notes/functions_for_scope.html

²⁵notes/array_collection_methods.html

²⁶assignments/5.html

²⁷notes/function_usage_patterns.html

²⁸notes/object_methods.html

²⁹notes/function_calls_and_this.html

³⁰notes/object_creation_prototypes.html

- Different stack implementations³¹
- EVERYTHING BELOW IS WORK IN PROGRESS
- Lab 2: Node, Testing³²
- Object properties³³
- Assignment 6³⁴
- Writing tests³⁵
- Introduction to the concept of Design Patterns³⁶
- Creation Patterns: Constructor³⁷
- Creation Patterns: Singleton³⁸
- Creation Patterns: Mixins³⁹
- Assignment 7⁴⁰
- Day 3
 - Introduction to the DOM (Document Object Model)⁴¹
 - Manipulating the DOM tree⁴²
 - Assignment 8⁴³
- Day 4
 - Data Structures in Javascript⁴⁴
 - Lab 3: Union/Find, Sets⁴⁵

Week 4 (01/26-01/30)

- Day 1
 - Introduction to DOM Events⁴⁶
 - Bubbling of Events⁴⁷
 - Assignment 9⁴⁸
- Day 2

³¹notes/stack_various.html

³²labs/2.html

³³notes/object_properties.html

³⁴assignments/6.html

³⁵notes/test writing.html

³⁶notes/design patterns.html

³⁷notes/pattern_constructor.html

³⁸notes/pattern_singleton.html

³⁹notes/pattern_mixin.html

⁴⁰assignments/7.html

⁴¹notes/dom_intro.html

⁴²notes/dom_tree.html

⁴³assignments/8.html

⁴⁴notes/data_structures.html

⁴⁵labs/3.html

⁴⁶notes/event intro.html

⁴⁷notes/event_bubbling.html

⁴⁸assignments/9.html

- Timers⁴⁹
- Function idiom: Throttling⁵⁰
- Assignment 10⁵¹
- Day 3
 - A custom Event module⁵²
- Day 4
 - Lab 4: Starting on a TODOapp⁵³

Week 5 (02/02-02/06)

- Day 1
 - Behavioral Patterns: Observer⁵⁴
 - Behavioral Patterns: Publish/Subscribe⁵⁵
- Day 2
 - Implementation of Publish/Subscribe⁵⁶
 - Behavioral Patterns: Mediator⁵⁷
 - Assignment 11⁵⁸
- Day 3
 - Introduction to jQuery⁵⁹
- Day 4
 - Lab 5: Continued work on TODOapp⁶⁰

Week 6 (02/09-02/13)

- Day 1
 - Architectural Patterns: Model-View-Controller⁶¹
- Day 2
 - Implementing a basic MVC^{62}

⁴⁹notes/event timers.html

⁵⁰notes/function_throttling.html

⁵¹assignments/10.html

⁵²notes/event_custom.html

⁵³labs/4.html

⁵⁴notes/pattern_observer.html

⁵⁵notes/pattern_pubsub.html

⁵⁶notes/pubsub_implementation.html

⁵⁷notes/pattern_mediator.html

⁵⁸assignments/11.html

⁵⁹notes/jquery_intro.html

⁶⁰labs/5.html

⁶¹notes/pattern_mvc.html

⁶²notes/mvc_implement.html

- Day 3
 - Introduction to Backbone⁶³
 - Assignment 12⁶⁴
- Day 4
 - Lab 6: Incorporating MVC in TODOapp⁶⁵

Week 7 (02/16-02/20)

- Day 1
 - Introduction to XMLHttpRequest⁶⁶
- Day 2
 - Ajax via jQuery⁶⁷
- Day 3
- Day 4
 - Lab 7: Introducing data persistence in TODOapp⁶⁸

Week 8 (02/23-02/27)

BREAK

Week 9 (03/02-03/06)

- Day 1
 - Testing with Stubs, Mocks and Spies⁶⁹
- Day 2
 - Module Patterns: Node modules⁷⁰
- Day 3
 - Module Patterns: AMD modules⁷¹
- Day 4
 - Project proposals

⁶³notes/backbone.html

⁶⁴assignments/12.html

⁶⁵ labs/6.html

⁶⁶ notes/xhr_intro.html

⁶⁷notes/xhr_jquery.html

⁶⁸labs/7.html

⁶⁹notes/test_stubs.html

⁷⁰notes/pattern_module.html

⁷¹ notes/pattern_amd.html

Week 10 (03/09-03/13)

- Day 1
 - Project structure⁷²
- Day 2
 - Survey of HTML elements⁷³
- Day 3
 - Survey of CSS features⁷⁴
- Day 4
 - Lab 8:⁷⁵

Week 11 (03/16-03/20)

- Day 1
 - Using Templates: Handlebars⁷⁶
- Day 2
 - Deeper look into Javascript objects⁷⁷
- Day 3
 - Structural Patterns: Facade⁷⁸
 - Structural Patterns: Proxy⁷⁹
- Day 4
 - Work on project

Week 12 (03/23-03/27)

- Day 1
 - Introduction to Promises⁸⁰
- Day 2

⁷²notes/project.html

⁷³notes/html_survey.html

⁷⁴notes/css_survey.html

⁷⁵labs/8.html

⁷⁶notes/templates.html

⁷⁷ notes/object_deeper.html

⁷⁸notes/pattern_facade.html

⁷⁹notes/pattern_proxy.html

⁸⁰notes/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