

Minimal requirements for interns: JS

Basic CS principles:

1. Version control (Git or SVN) <https://git-scm.com/book/ru/v2>
2. Recursion <https://habr.com/ru/post/337030/>
3. Closure <https://developer.mozilla.org/ru/docs/Web/JavaScript/Closures>
4. Command line basics <https://ru.hexlet.io/courses/bash> (бесплатный курс)
5. HTTP basics <https://developer.mozilla.org/ru/docs/Web/HTTP>

JS CORE:

1. Data types
https://developer.mozilla.org/ru/docs/Web/JavaScript/Data_structures
2. Ways to declare a variable and differences between them
<https://habr.com/ru/company/ruvds/blog/420359/>
3. Types casting <https://learn.javascript.ru/types-conversion>
4. Comparisons <https://learn.javascript.ru/comparison>
5. Conditional and logical operators <https://learn.javascript.ru/logical-ops>
6. Functions and ways to declare it. Functional expression
<https://learn.javascript.ru/es-function>
7. Scope
<https://developer.mozilla.org/ru/docs/Web/JavaScript/Guide/Functions>
(Относится и к 6)
8. Error handling
<https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Statements/try...catch>
9. Strict mode
https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Strict_mode
10. Arrays and array methods
https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Global_Objects/Array
11. Objects and methods of object
https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Global_Objects/Object

12. Constructor, "new" operator
<https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Operators/new>
13. Prototype: inheritance, methods
https://developer.mozilla.org/ru/docs/Learn/JavaScript/Объекты/Object_prototypes
14. Classes, class based syntax, three pillars of OOP, class checking
<https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Classes>
15. Ways of handling asynchronous operations: callbacks, promises, async functions. Concepts of callback hell, promisification, event loop
<https://blog.hellojs.org/asynchronous-javascript-from-callback-hell-to-async-and-await-9b9ceb63c8e8>
16. Generators concept
https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Statements/function*
17. Modules, import/export
<https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Statements/import> <https://learn.javascript.ru/modules>
18. Network requests: fetch, xhr
https://developer.mozilla.org/ru/docs/Web/API/Fetch_API
<https://developer.mozilla.org/ru/docs/Web/API/XMLHttpRequest>

Browsers: DOM, BOM, Events

1. DOM tree
https://developer.mozilla.org/ru/docs/DOM/DOM_Reference/Введение
2. Searching in DOM
https://developer.mozilla.org/ru/docs/Learn/JavaScript/Client-side_web_APIs/Manipulating_documents
3. Attributes and properties of element
<https://developer.mozilla.org/ru/docs/Web/HTML/Element>
4. Size and scrolling, coordinates <http://learn.javascript.ru/onscroll>
<https://learn.javascript.ru/metrics>
5. Browser events: bubbling, capturing, default actions
<https://learn.javascript.ru/event-bubbling>
<https://learn.javascript.ru/default-browser-action>
6. Forms: form properties, form events, submit without JS
<https://developer.mozilla.org/ru/docs/Learn/HTML/Forms> (ссылки тут, пошаговый гайд)

7. BOM, BOM objects, concepts

<https://metanit.com/web/javascript/7.1.php> (весь раздел)