

## 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](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/Reference/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](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](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](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](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> (статья пушка, куча линков на мдн)
16. Generators concept  
[https://developer.mozilla.org/ru/docs/Web/JavaScript/Reference/Statements/function\\*](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/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](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](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)