**References for Node (including some for advanced JavaScript)**

Some of these topics have been discussed in other pages in this directory; this page is just references.

1. **First things first**

**There is a list of references on JavaScript and ES6 in Chapter 11. (Favorite JS books.)** They are not duplicted here. The references here are those which are specifically oriented to Node.

1. **Books (real ones) –
 NOTE: Items (d) and (e) – and, of course (g) – and (h) are particularly important.**
2. **Get Programming with Node.js by Jonathon Wexler.** https://acm.percipio.com/books/84e7ae8b-ede5-4c6e-beb9-c145b43f94a2#epubcfi(/6/4!/4/2%5Bepubmain%5D/2%5Bg269b43ad-56bf-478c-98a5-10dad5ae422c%5D/2/2/1:0) We will make extensive use of this book.
3. **Beginning Node by Basarat Ali Syed** Apress 2014 At Although this is an older book, it is truly excellent and clear. https://acm.percipio.com/books/08c96e50-f32f-11e6-ad5d-0242c0a80607
4. **Node.js: Learn one of the most powerful JavaScript frameworks**. Web App Development - also  in Kindle Edition by Ralph Archer (Author)
This book is absolutely useless for a newbie.  I’ll let you know later if it works for someone who knows more.
5. **Full Stack JavaScript: Learn Backbone.js, Node.js and MongoDB 2nd edition by Azat Marden** Apress 2015 https://acm.percipio.com/books/50723bda-b6ab-4984-802f-d51394636eb8#epubcfi(/6/4!/4/2%5Bepubmain%5D/2%5Bgc4b2057e-2c1c-4c6c-b84f-38818a3446ca%5D/2/2/1:0) and his more recent (2018) **Practical Node.js Building Real World Scalable Apps, 2nd edition** **https://acm.percipio.com/books/f24aee43-b199-425d-b51e-91fe815d1d4e#epubcfi(/6/4!/4/2%5Bepubmain%5D/2%5Bgc49746a7-0750-4e6d-8635-1cce3d1c272e%5D/2/2/1:0)**

     **b. SAMS Teach Yourself Node.js in 24 Hours**
The first few chapters are pretty good.  Unfortunately, by chapter 6 there are lots of errors.  If you are a member of the ACM you can get free access to this thru Safari books – but don’t let anything after the first few chapters frustrate you.

      c. **Web Development with Node and Express: Leveraging the JavaScript Stack 1st Edition**by Ethan Brown
The first 2 chapters are pretty comprehensible and a good start.  He starts with routes (getting node to respond differently to different pages), and it makes sense.  By chapter 3 he is using functionality from Express without saying how requiring (aka importing) a module works or what the Express module provides.  So it’s time to back off and fill some stuff in; I expect I’ll get back to it.   Uses Handlebars for templates.

     d.  **Node.js, MongoDB, and AngularJS Web Development (Developer's Library) 1st Edition**by Brad Dayley
The first 3 chapters are straight forward and useful.  Chapter 4 is about event emmitters and it will take some work, (even if you are used to anonymous functions and event handlers.) Chapter 5 and 6 are about i/o and file handling.  Only in chapter 7 do you get to the kinds of things a web designer would want to know.  This is a more complete book than the Ethan brown one – lots of material on Mongo, etc.

 **g. You don’t know JS books** by Kyle Simpson. These small, very sophisticated, excellent books may be read free at this site. https://github.com/getify/You-Dont-Know-JS The ones on “Scope and Closure” and “this and Object Prototypes” are particularly relevant for our course.

 **h. Eloquent JavaScript by Marijn Havebeke is at** **http://eloquentjavascript.net/index.html**(and probably in the ACM site.) Chapters 10, 11, and 20 are particularly relevant to Node.js

i. **Node.js, MongoDB, and AngularJS Web Development (Developer's Library) 1st Edition**by Brad Dayley –
The first 3 chapters are straight forward and useful.  Chapter 4 is about event emmitters and it will take some work, (even if you are used to anonymous functions and event handlers.) Chapter 5 and 6 are about i/o and file handling.  Only in chapter 7 do you get to the kinds of things a web designer would want to know.  This is a more complete book than the Ethan brown one – lots of material on Mongo, etc. Should be in the Simmons Library.

**3. On-line tutorials and short books
a. Udemy course Learn and Understand Node.js with  Anthony Alicea**This tutorial begins with a deep dive into JavaScript before delving into node.  The “big word alerts” feel condescending, but some of the material (even  for those who are comfortable with jQuery) is worth hearing – and you can speed up the video. Uses the Visual Studio IDE, so any operating system is okay.
Anthony Alicea is a great teacher. It takes a long time to get to Node, but it's worth it.  *If you are going to use one tutorial, this is it.*

**b. Lynda.com tutorial: Building a website with node.js and express.js**      Available free thru some libraries and universities.  Starts with building a web project and npm.  Then moves quickly on to express, using the EJS template engine.  Pretty easy to follow. Doesn’t go as deep as the Udemy course.  No major discussion of modules or routes.  A good place to start, but you will need more later. There is a list of these at https://www.lynda.com/Node-js-training-tutorials/1283-0.html

**c**. Elementary and good:

* **thenewboston tutorials on youtube.**https://www.youtube.com/watch?v=-u-j7uqU7sI&list=PL6gx4Cwl9DGBMdkKFn3HasZnnAqVjzHn\_
The series is usually  good and usually works on both PCs and Macs.  It is hard to read the screen, and, since it is a tutorial, there is no refernce material when you’re done.
I really get tired of being talked to like to 20-something guy ( & especially being called “hey guys”).  That said, Bucky is pretty clear, he weaves in what you need to know, and he gets to the good parts quickly
* **Traversy** has several at https://www.youtube.com/results?search\_query=traversy+node.js
The crash course starts at https://www.youtube.com/watch?v=U8XF6AFGqlc but it isn't very good; I may later go over the part from minute 20 on. and a longer course is at https://www.youtube.com/watch?v=fBNz5xF-Kx4&t=11s
Here he talks about MVC, which stands for Model, View, Controller. The Model is how your data is structured (the HTML) the View is how it appears (the CSS) and the Controller is how the program operates (the JavaScript.)
* **Bogdan Staschuk has a series on npm at** **https://www.youtube.com/playlist?list=PLWkguCWKqN9PI8zI57E4FsxHbcPbrL8rp**
* **Mosh Hammedi is at** **https://www.youtube.com/watch?v=TlB\_eWDSMt4**
* https://www.tutorialspoint.com/nodejs/nodejs\_global\_objects.htm is a tutorial. There is a video option and many of their tutorials have a 'try it' option.
* https://www.w3schools.com/nodejs/ w3schools has a very bare bones introduction. It is not up to the standards of their other tutorials. That said, the sections from Modules the Events give you a peek into what those modules can do. (The pages need more in the way of explanations.) And the Upload Files and Email pages introduce potentially interesting modules.

   . **d. Mixu's Node Book****http://book.mixu.net/node/single.html**This is borderline between tutorial and reference.  It would not be the first place I went to learn Node, but once you know some Node it is helpful.  It even has a section on gotchas. Also, be careful about possible use of legacy code.

 **e. Tutorialspoint** **https://www.tutorialspoint.com/nodejs/nodejs\_introduction.htm**
This is an excellent tutorial – but it assumes you know the vocabulary, so you should read the items in paragraph 1 first.

https://nodejs.dev/learn is the official Node.js introduction – very clear but also quite advanced.

 **f.** **https://adrianmejia.com/blog/2016/08/12/getting-started-with-node-js-modules-require-exports-imports-npm-and-beyond/**An excellent tutorial which links to a tutorial on npm at https://adrianmejia.com/blog/2016/08/19/node-package-manager-npm-tutorial/ and one on a file server at https://adrianmejia.com/blog/2016/08/24/building-a-node-js-static-file-server-files-over-http-using-es6/ and crud-ing with Angular at https://adrianmejia.com/blog/2016/10/01/angular-2-tutorial-create-a-crud-app-with-angular-cli-and-typescript/ ).

 **g.** **https://github.com/maxogden/art-of-node/#the-art-of-node**This is an excellent tutorial for once you have gotten started. The discussion of callbacks and asynchoronous processing are excellent and discuss issues most sites gloss over. Likewise there are great sections on events/event emitters and on streams. They point you to nodeschool.io (item lower down) below, but I preder the Tutorialspoint one directly above.

 h. https://www.airpair.com/javascript/node-js-tutorial has a speedy linux-oriented tutorial. I would use the others in preference to this one.

#  i. https://code.tutsplus.com/tutorials/nodejs-for-beginners--net-26314 has a clear introduction, but I would read this after a little expoloration with some of the more basic ones. j. Felix’s Guide at http://nodeguide.com/beginner.html is linux-oriented. Once you get past the installation and are starting to get going, he has some useful insights. On the other hand, this was written in 2011 so it does not make any use of ES6 or other more recent changes.  k. https://nodeschool.io/ is a popular tutorial which I found opaque.

 l. http://cwbuecheler.com/web/tutorials/2013/node-express-mongo/ has a clear tutorial, but oriented towards using Express from early stages, so I would wait til I was ready to use Express before I went here.

 m. https://github.com/MartinChavez/Node.js-Tutorial has a tutorial for people who already know quite a bit.

 n. https://dzone.com/articles/absolute-beginner%E2%80%99s-guide has “an absolute beginner’s guide” for developers --- will get you thru the installation and npm and a first example. A good place to check your understanding after you read some of the more detailed tutorials/book chapters. https://blog.hellotangible.com/an-absolute-beginners-guide-to-node-js-c27e6d108b5c is very similar – both are quite clear.

 o. Longer lists of tutorials may be found at http://stackoverflow.com/questions/2353818/how-do-i-get-started-with-node-js and https://potentpages.com/programming/node-js-tutorials/ and older longer lists at https://www.smashingmagazine.com/2011/09/useful-node-js-tools-tutorials-and-resources/ and https://www.quora.com/What-are-some-good-tutorials-on-using-Node-js

p. https://acm.skillport.com/skillportfe/main.action#summary/COURSES/CDE$79016:\_ss\_cca:it\_sdnjad\_01\_enus Application Development with Node.js

 **4. Reference sites - General**http://www.tutorialspoint.com/nodejs/Although tutorialspoint.com describes its sites as tutorials I have always found them better as references - and very fine references.
 https://nodejs.org/en/docs/es6/ The official documentation.
 https://nodejs.org/docs/latest/api/modules.html The modules documentation

 **5. References - Specific**

**a.      References on managing dependencies**http://freecontent.manning.com/managing-node-js-project-dependencies-with-npm-and-a-package-json-file/ on managing dependencies. Clear, straighforward.
http://www.infoworld.com/article/2984358/application-development/inside-npm-building-and-sharing-javascript- packages.html?phint=newt%3Dinfoworld\_daily&phint=idg\_eid%3Dae8e3ea0bca8a3c279ed6a8235932ec2#tk.IFWNLE\_nlt\_daily\_pm\_2015-09-22 on what npm will do for you, but less detailed.
https://www.packtpub.com/books/content/using-nodejs-dependencies-nwjs?mc\_cid=23ec57dbd9&mc\_eid=9aa1af28be on what modules are shipped with node

**b. The File Systems fs module**
http://shapeshed.com/working\_with\_filesystems\_in\_nodejs/
      http://code-maven.com/system-information-about-a-file-or-directory-in-nodejs
      http://www.sitepoint.com/accessing-the-file-system-in-node-js/  -clear
      http://www.tutorialspoint.com/nodejs/nodejs\_file\_system.htm  -complete
      http://www.graemeboy.com/node-fs

 Simple example of a server https://www.nodebeginner.org/#a-word-of-warning

**c.      Multiple examples** Building a web crawler (\* underlying topics)  http://code-maven.com/building-a-crawler-in-nodejs
 Various topics https://www.codementor.io/nodejs/tutorial and https://codeforgeek.com/category/nodejs/ and http://nodetuts.com/ and https://www.sitepoint.com/?s=node.js

 https://www.tutorialsteacher.com/nodejs/create-nodejs-web-server has simple examples for servers, using npm, fs etc. Clear but just a start.

**d. Extracting data from GET and POST requests**  https://nodejs.dev/learn/get-http-request-body-data-using-nodejs both with and without Express.
 https://www.tutorialspoint.com/urlsearchparams-values-and-keys-in-node Uses URLSearchParams
 https://www.geeksforgeeks.org/node-js-urlsearchparams-api/ ditto
 https://nodejs.org/api/url.html#url-strings-and-url-objects has all the documentation with some examples.
 https://stackoverflow.com/questions/66748591/hey-can-you-help-me-out-my-url-parse-is-deprecated has current methods

**e. Advanced JavaScript links which are particularly useful in Node.**

 **Javascript – objects, functions etc. (multiple topics)
 See also** http://web.simmons.edu/~menzin/WebCentricResources.html#JavaScript including the documentation and the section on advanced topics https://developer.mozilla.org/en-US/docs/Web/JavaScript/Inheritance\_and\_the\_prototype\_chain and https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide Great reference for many features; start here.
 https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Details\_of\_the\_Object\_Model has a good comparison of class-based (e.g. Java) vs prototype-based (e.g. JavaScript) inheritance.
 http://helephant.com/2008/08/17/how-javascript-objects-work/ Great second reference to read
 https://msdn.microsoft.com/en-us/library/b9w25k6f%28v=vs.94%29.aspx and https://msdn.microsoft.com/en-us/library/yek4tbz0%28v=vs.94%29.aspx More complex code.
 http://book.mixu.net/node/ch4.html Gotchas – esp. relating to *this and scopes.*
 https://dzone.com/articles/how-to-fix-the-go-package-management-problem?edition=147264&utm\_source=Daily%20Digest&utm\_medium=email&utm\_content=DZone%20Daily%20Digest&utm\_campaign=dd%202016-02-24&userid=736449 complains about the very, very common use of anonymous functions.
 http://ejohn.org/apps/learn/#49 Slide #49 starts closures, #59 shows how to use a wrapping function so you can avloid problems with loops and closures, #64 and #75 start prototypes and inheritance respectively.

     **Javascript - callback and closures**http://recurial.com/programming/understanding-callback-functions-in-javascript/
         https://developer.mozilla.org/en-US/docs/Web/JavaScript/Closures  Wonderful examples and explanations - especially on closures and Advanced topics

    **JavaScript - the prototype chain**https://developer.mozilla.org/en-US/docs/Web/JavaScript/Inheritance\_and\_the\_prototype\_chain
 http://www.2ality.com/2012/01/js-inheritance-by-example.html clear explanation and advice on best practices
 http://wildlyinaccurate.com/understanding-javascript-inheritance-and-the-prototype-chain/ a more sohisticated look, but it shows the structure of the chain
 https://ncombo.wordpress.com/2013/07/11/javascript-inheritance-done-right/ the most sophisticated of all