

Course Code	
Course Name	Introduction to Node.js

Duration (in days)	2	Proficiency Level	Front End Development
Pre-requisites	Javascript	Target Audience	Campus Hires

Learning Outcome

At the end of the program, participants will be able to learn:

- Learn the need for Node.js
- Implement features of ES 6
- Understand the concepts of packages, Modules
- Design Modular Programming in Node.js
- Implement HTTP programs in Node.js

Day-wise Session Plan

Day	Unit	Objective(s)	Hours
1	Introduction	<ul style="list-style-type: none"> • What is NodeJS • NodeJS Architecture • LibUV • EventLoop • V8 Engine • Need for NodeJS • Understand the significance of package. Json • Downloading packages using NPM command • Global vs. local package installation 	2
1	ES6 features	<ul style="list-style-type: none"> • ES 6 features • Arrow expressions • Object literals • Destructuring • Closures • Named imports and default imports • Async Await • The require keyword 	3
1,2	Modules	<ul style="list-style-type: none"> • Modularization • Global Objects and Core Modules • Built-in Modules • The CommonJS and RequireJS specifications • Defining modules with exports • Modules are singletons • Creating a package • Module scope and construction • Module caching • Global Modules • Core Modules 	6 (3+3)
2	Exception handling	<ul style="list-style-type: none"> • Error handling using try catch • Error Object 	2

		<ul style="list-style-type: none">• Custom exception handlers• Global Exception Handler	
2	HTTP	<ul style="list-style-type: none">• The HTTP protocol• Building an HTTP server• Rendering a response• Processing query strings• Using Representational State Transfer (REST)	3