## **Critical Path**

## Full-Stack Web Development – JS and XML

HTTP5222, Summer 2024

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The Critical Path is the course schedule. It is an important document that lays out weekly **and/or** module objectives that you are responsible for to ensure academic success. Download and/or print out a copy of the Critical Path and refer to it regularly.

## **Module Breakdown**

Module	Topics, Readings, and Activities	Due Dates	Weight
1	Module 1: Node.js		4%
	Topics:		
	<ul><li>Introduction to Course</li><li>Introduction to Node.js key concepts</li></ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	• Lab 1 (4%)	May 9	
2	Module 1: Node.js		4%
	Topics:		
	Create and run a Node.js app		

Module	Topics, Readings, and Activities	Due Dates	Weight
	• npm		
	Readings:		
	Provided by instructor		
	Activities:		
	• Lab 2 (4%)	May 16	
3	Module 1: Node.js		4%
	Topics:		
	<ul> <li>Connecting your Node.js app to a MongoDB database</li> <li>MongoDB CRUD functions</li> </ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	• Lab 3 (4%)	May 24	
4	Module 1: Node.js		20%
	Topics:		
	<ul> <li>Create your own internal Node.js module</li> <li>MongoDB Atlas Database and securing MongoDB database</li> </ul>		
	Readings:		

Module	Topics, Readings, and Activities	Due Dates	Weight
	Provided by instructor		
	Activities:		
	<ul><li>In-class exercise</li><li>Assignment 1 (20%)</li></ul>	May 30	
5	Module 1: Node.js		4%
	Topics:		
	<ul><li>Mongoose</li><li>Deploying a Node.js app</li></ul>		
	Activities:		
	• Lab 4 (4%)	Jun. 6	
6	Module 2: XML, JSON and APIs		4%
	Topics:		
	<ul><li>Consuming a REST API using Node.js</li><li>Creating a JSON REST API using Node.js</li></ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	• Lab 5 (4%)	Jun. 13	

Module	Topics, Readings, and Activities	Due Dates	Weight
7	Module 2: XML, JSON and APIs		4%
	Topics:		
	<ul><li>Reading/querying XML and JSON data sources</li><li>Open data sources</li></ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	• Lab 6 (4%)	Jun. 21	
	READING WEEK (no classes)		
8	Module 3: React		8%
	Topics:		
	<ul> <li>Intro to React components, props and states</li> </ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	<ul><li>Project checkpoint (4%)</li><li>Lab 7 (4%)</li></ul>	Jul. 3 Jul. 5	

Module	Topics, Readings, and Activities	Due Dates	Weight
9	Module 3: React		4%
	Topics:		
	<ul><li>Using React Router for page routes</li><li>Making API requests in React</li></ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	• Lab 8 (4%)	Jul. 12	
10	Module 3: React		
	Topics:		
	React Context		
	<ul><li>Considerations for React apps</li><li>Deploying a React app using Vercel</li></ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	In-class exercise		
11	Module 3: React		24%
	Topics:		

Module	Topics, Readings, and Activities	Due Dates	Weight
	Reducer functions		
	Readings:		
	Provided by instructor		
	Activities:		
	<ul><li>In-class exercise</li><li>Project (24%)</li></ul>	Jul. 26	
12	Module 4: Extras		
	Topics:		
	<ul><li>Next.js framework</li><li>TypeScript</li></ul>		
	Readings:		
	Provided by instructor		
	Activities:		
	In-class exercise		
13	Module 4: Extras		
	Topics:		
	React Redux		
	Readings:		
	Provided by instructor		

Module	Topics, Readings, and Activities	Due Dates	Weight
	Activities:		
	In-class exercise		
14	Module 4: Extras		20%
	Topics:		
	• TBA		
	Readings:		
	Provided by instructor		
	Activities:		
	Assignment 2 (20%)	Aug. 16	

## **Summary of Graded Course Components**

Summary	Weight
Total for Labs (8)	32%
Total for Assignments (2)	40%
Total for Projects (1)	28%

Summary	Weight
Total	100%