ReactJS Course Content

Engineered for skill enhancement.

PROGRAM HIGHLIGHTS

Accredited Certificates :

✓ Program approved ISO Certification

Internships :

✓ Industry-relevant opportunities provided-

Placement Assistance :

✓ Career guidance from industry experts-

Basic to Advanced Level Training :

✓ Learn from experienced AI professionals .

Live & Recorded Lectures :

✓ Flexible learning at your convenience .

Real-Time Projects :

✓ Hands-on minor & major projects

ABOUT US

- **OUR MISSION :**

    Nxt Sync is a pioneering EdTech company committed to bridging the gap between theoretical learning and practical application. Our mission is to empower students with cutting-edge AI skills that enhance employability and prepare them for a tech-driven future.

- **OUR VISION--UPSKILL**: Empowering minds for the future.

- **INNOVATE**: Fostering creativity and breakthroughs .

- **EXCEL**: Preparing industry-ready professionals.

WHY REACTJS?

- Most popular library for building modern web applications

- In-demand skill for front-end development in tech companies

- Strong community and ecosystem (Redux, Next.js, etc.)

- Opportunities in startups, MNCs, freelancing, and remote work

- Foundation for full-stack (MERN) development

LEARNING PATH

- Introduction to Web Development & JavaScript
- ReactJS Fundamentals
- Component Architecture & Props
- State Management & Hooks
- Routing with React Router
- Forms and Validation
- API Integration
- Context API & Redux
- Testing and Debugging
- Deployment & Capstone Project

DETAILED MODULE BREAKDOWN

Module 1: Introduction to ReactJS

•What is React?

•Key Features & Benefits

•Virtual DOM & React Architecture

•Setting up the Environment (Node.js, npm, create-react-app)

Module 2: JavaScript ES6+ Essentials

•let, const, arrow functions

•Destructuring, Spread/Rest Operators

•Modules & Classes

Module 3: Components & Props
•Functional vs Class Components
•JSX Syntax and Rules
•Passing and Using Props
Module 4: State and Lifecycle
•useState Hook
•useEffect Hook
•State in Class Components
•Lifecycle Methods Overview
Module 5: Event Handling and Forms
•Handling Events in JSX
•Controlled vs Uncontrolled Components
•Form Validation & Submission

Module 6: React Router
•Installing and Using React Router
•Route Configuration
•Navigation & Link Components
•Nested Routes & Redirects
Module 7: Advanced State Management
•Lifting State Up
•Context API
•Redux Basics (Store, Actions, Reducers)
Module 8: API Integration
•Fetching Data using fetch and axios
•Displaying Dynamic Data
•Loading & Error Handling

Module 9: Testing & Debugging
•Debugging Tools in React
•Unit Testing with Jest and React Testing Library
•Writing Effective Test Cases

Module 10: Deployment & Capstone Project
•Preparing for Production Build
•Hosting on Netlify, Vercel, or GitHub Pages
•Final Project: Full-Featured React Application
•Code Review and Peer Feedback

ASSIGNMENT'S &ASSESSMENTS

- ➢ **Weekly hands-on assignments**

- ➢ **Mid-term AI mini-projects**

- ➢ **Final capstone AI project**

- ➢ **Live presentations & discussions**

TOOLS & FRAMEWORKS USED

•Visual Studio Code
•Node.js & npm
•React Developer Tools
•Git & GitHub
•Postman for API testing

RECOMMENDED READING

- **Official ReactJS Documentation**
- **"The Road to React" by Robin Wieruch**
- **FreeCodeCamp React Tutorials**
- **Codecademy & Scrimba React Courses**
- **JavaScript.info for JS Fundamentals**

WHY CHOOSE NXTSYNC?

❏ Globally aligned curriculum
❏ Hands-on projects and real-world scenarios
❏ Academic + Industry mentorship
❏ Career pathways in web development, software engineering and freelancing

Start Your Journey with NxtSync Today!!!!

THANK YOU