Here's the updated curriculum with \*\*React\*\* as a separate module, integrating it into the frontend development track:

### \*\*Module 1: Fundamentals of Web Development\*\*

\*Overview\*: Introduces basic concepts of web development using HTML, CSS, and JavaScript.

#### \*\*Topics and Subtopics:\*\*

1. \*\*HTML Basics\*\*

- Structure of an HTML Document

- HTML Elements and Attributes

- Links and Navigation

2. \*\*CSS Fundamentals\*\*

- CSS Selectors and Properties

- Styling Text and Layouts

- Introduction to the CSS Box Model

3. \*\*JavaScript Basics\*\*

- Variables and Data Types

- Functions and Control Structures

- DOM Manipulation

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### \*\*Module 2: Intermediate Web Development\*\*

\*Overview\*: Builds upon the fundamentals, focusing on CSS layout techniques and advanced JavaScript.

#### \*\*Topics and Subtopics:\*\*

1. \*\*CSS Layout Techniques\*\*

- Flexbox and CSS Grid

- Responsive Design with Media Queries

2. \*\*Advanced CSS Styling\*\*

- Transitions and Animations

- CSS Preprocessors (Sass or Less)

3. \*\*JavaScript Fundamentals\*\*

- Understanding ES6 Features

- Asynchronous JavaScript (Promises, Fetch API)

4. \*\*Introduction to React\*\*

- Setting Up a React Environment

- Understanding JSX and Components

5. \*\*Event Handling and State Management\*\*

- Handling Events in React

- Using State with Functional Components

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### \*\*Module 3: React Development\*\*

\*Overview\*: Focuses specifically on React and its ecosystem.

#### \*\*Topics and Subtopics:\*\*

1. \*\*React Basics\*\*

- Understanding Components and Props

- Functional vs. Class Components

2. \*\*State and Lifecycle\*\*

- Using useState and useEffect Hooks

- Component Lifecycle Methods

3. \*\*Routing with React Router\*\*

- Setting Up React Router

- Dynamic Routing and Nested Routes

4. \*\*State Management\*\*

- Context API for Global State

- Introduction to Redux

5. \*\*Styling in React\*\*

- CSS Modules vs. Styled Components

- Responsive Design in React Applications

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### \*\*Module 4: Advanced Frontend Techniques\*\*

\*Overview\*: Delves deeper into advanced topics like performance optimization and testing in React.

#### \*\*Topics and Subtopics:\*\*

1. \*\*Advanced React Patterns\*\*

- Higher-Order Components and Render Props

- Custom Hooks

2. \*\*Performance Optimization\*\*

- Code Splitting and Lazy Loading

- Memoization Techniques

3. \*\*Testing React Applications\*\*

- Unit Testing with Jest

- Integration Testing with React Testing Library

4. \*\*Progressive Web Apps (PWAs)\*\*

- Service Workers and Caching Strategies

- Offline Functionality

5. \*\*Web Accessibility\*\*

- Implementing ARIA Roles

- Accessibility Testing Tools

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### \*\*Module 5: Full-Stack Development\*\*

\*Overview\*: Integrates frontend development with backend technologies.

#### \*\*Topics and Subtopics:\*\*

1. \*\*API Integration\*\*

- Fetching Data from RESTful APIs

- Using GraphQL with React

2. \*\*Full-Stack Development with MERN\*\*

- Setting Up a MERN Stack Application

- Connecting React with MongoDB and Express

3. \*\*Deployment Strategies\*\*

- Deploying React Applications

- Setting Up CI/CD Pipelines

4. \*\*User Authentication\*\*

- Implementing Authentication with JWT

- Managing User Sessions

5. \*\*Advanced Topics\*\*

- TypeScript in React Applications

- Internationalization (i18n) in React

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This structure now emphasizes React as a dedicated module while also providing a cohesive learning journey through web development. Let me know if you need any more changes or details!