COURSE STRUCTURE

Course Breakdown:

Digital Marketing & E-commerce

Foundation Phase: Weeks 1-4

Weeks 1-2: Introduction to Digital Marketing

- Basics of digital marketing landscape
- Understanding different digital marketing channels
- Setting up online profiles and platforms

Weeks 3-4: Introduction to E-commerce

- E-commerce fundamentals
- Building an online store
- Payment gateways and security

Intermediate Phase: Weeks 5-12

Weeks 5-6: Social Media Marketing

- Creating engaging social media content
- Social media advertising and targeting

Weeks 7-8: Content Strategy and Email Marketing

- Developing content marketing plans
- Effective email campaign strategies

Weeks 9-10: SEO and SEM

- Advanced SEO techniques
- Introduction to search engine marketing (SEM)

Weeks 11-12: Advanced Digital Marketing Strategies

- Data-driven decision-making
- Crafting a comprehensive digital marketing strategy

Advanced Phase: Weeks 13-20

Weeks 13-14: Analytics and Data Interpretation

- Advanced Google Analytics usage
- A/B testing and optimization

Weeks 15-16: Conversion Rate Optimization and UX

- Understanding user behavior
- Optimizing conversion rates
- Introduction to user experience design principles

Weeks 17-18: E-commerce Optimization

- Enhancing the e-commerce user experience
- Analytics for e-commerce optimization

Weeks 19-20: Final Projects and Presentations

- Participants work on real-world projects
- Present their campaigns and strategies

Internship Phase: Weeks 21-24

- Weeks 21-24: Internship Period
- Participants engage in internships to apply their skills
- Gain practical experience in real-world scenarios
- Participate in business projects related to digital marketing and e-commerce

Advanced Data Analytics Training Program

Phase 1: Foundation (1 month)

Weeks 1-2: Introduction to Data Analytics

- Understanding the role of data analytics in decision-making
- Basics of data types, variables, and data collection

- Introduction to data analysis tools (Excel, Google Sheets)
- Data cleaning and preprocessing techniques

Weeks 3-4: Exploratory Data Analysis (EDA)

- Data visualization fundamentals
- Creating basic charts and graphs
- Descriptive statistics and data summarization
- Identifying patterns and outliers in data

Phase 2: Intermediate (2 months)

Weeks 5-6: Data Analysis with Python (Pandas and Matplotlib)

- Introduction to Python programming for data analysis
- Working with Pandas for data manipulation
- Data visualization using Matplotlib
- Combining multiple data sources

Weeks 7-8: Statistical Analysis

- Probability and distributions
- Hypothesis testing and confidence intervals
- Correlation and regression analysis
- Practical application of statistical concepts

Weeks 9-10: Data Visualization and Communication

- Advanced data visualization techniques (Seaborn, Plotly)
- Design principles for effective data visualizations
- Creating dashboards for data storytelling
- Interpreting and presenting data insights

Phase 3: Advanced (2 months)

Weeks 11-12: Data Analysis with SQL

- Introduction to relational databases and SQL
- Querying databases to extract relevant information
- Joining multiple tables for complex analysis
- Subqueries and advanced SQL functions

Weeks 13-14: Machine Learning Fundamentals

- Introduction to machine learning concepts
- Supervised vs. unsupervised learning
- Feature engineering and model evaluation
- Applying machine learning algorithms in Python

Weeks 15-16: Time Series Analysis and Forecasting

- Understanding time-dependent data
- Time series visualization and decomposition
- Forecasting techniques (moving averages, ARIMA)
- Evaluating time series forecasting models

Phase 4: Internship (1 month)

Weeks 17-20: Internship and Practical Application

- Participants engage in internships with local businesses or organizations
- Apply advanced data analytics skills in real-world projects
- Gain experience in data collection, analysis, and interpretation
- Collaborate with professionals to solve real-world data challenges

Data Science and Analytics Training Program

Phase 1: Foundation (1 month)

Weeks 1-2: Introduction to Data Science and Analytics

- Understanding the role of data science in decision-making
- Basics of data types, variables, and data collection
- Introduction to data analysis tools (Python, Jupyter)
- Data cleaning and preprocessing techniques

Weeks 3-4: Exploratory Data Analysis (EDA)

- Data visualization fundamentals
- Creating basic charts and graphs
- Descriptive statistics and data summarization
- Identifying patterns and outliers in data

Phase 2: Intermediate (2 months)

Weeks 5-6: Data Wrangling and Preprocessing

- Working with messy and incomplete data
- Data transformation and feature engineering
- Handling missing values and outliers

Weeks 7-8: Statistical Analysis and Hypothesis Testing

- Probability distributions and statistical inference
- Hypothesis testing and p-values
- Correlation and regression analysis
- Practical application of statistical concepts

Weeks 9-10: Data Visualization and Communication

- Advanced data visualization techniques (Seaborn, Plotly)
- Design principles for effective data visualizations
- Creating dashboards for data storytelling
- Interpreting and presenting data insights

Phase 3: Advanced (2 months)

Weeks 11-12: Machine Learning Fundamentals

- Introduction to machine learning concepts
- Supervised vs. unsupervised learning
- Feature selection and engineering
- Model evaluation and hyperparameter tuning

Weeks 13-14: Advanced Machine Learning Algorithms

- Decision trees, random forests, and ensemble methods
- Support Vector Machines (SVM)
- Clustering algorithms (K-means, DBSCAN)
- Applying machine learning algorithms in Python

Weeks 15-16: Natural Language Processing (NLP) and Deep Learning

- Introduction to NLP and text processing
- Basics of neural networks and deep learning

- Building and training neural networks
- Practical applications of NLP and deep learning

Phase 4: Internship (1 month)

Weeks 17-20: Internship and Practical Application

- Participants engage in internships with local businesses or organizations
- Apply data science and analytics skills in real-world projects
- Gain experience in data collection, analysis, and interpretation
- Collaborate with professionals to solve real-world data challenges

UI/UX and frontend development are related but distinct skill sets. Separating them allows participants to specialize in either area, while merging them could provide a broader understanding of the entire web development process. Here's a breakdown of both options:

Option 1: Separate UI/UX and Frontend Development

UI/UX Training Program

Phase 1: Foundation (1 month)

- Introduction to UI/UX principles and concepts
- User-centered design methodologies
- Wireframing and prototyping tools
- Basics of user research and usability testing

Phase 2: Intermediate (2 months)

- Information architecture and user flows
- Interaction design and user interface patterns
- Visual design principles and tools
- Conducting user testing and feedback incorporation

Phase 3: Advanced (2 months)

- Advanced user experience strategies
- Mobile and responsive design principles
- Designing for accessibility and inclusivity

- Final UI/UX projects and presentations

Frontend Development Training Program

Phase 1: Foundation (1 month)

- Introduction to HTML and CSS
- Building static web pages
- Responsive web design basics
- Introduction to version control (Git)

Phase 2: Intermediate (2 months)

- JavaScript fundamentals and DOM manipulation
- Introduction to front-end frameworks (e.g., React, Vue)
- Web performance optimization techniques
- Integrating APIs and asynchronous programming

Phase 3: Advanced (2 months)

- Advanced JavaScript topics (closures, promises, etc.)
- Building complex web applications with frameworks
- Debugging and testing frontend code
- Final frontend projects and presentations

Internship Phase (1 month)

- Participants can choose internships aligned with their specialization (UI/UX or frontend development)
- Apply skills in real-world projects
- Gain practical experience and industry insights
- Collaborate with professionals on design or development projects

Option 2: Merge UI/UX and Frontend Development

UI/UX and Frontend Development Training Program

Phase 1: Foundation (1 month)

- Introduction to UI/UX and frontend development
- Basics of HTML, CSS, and JavaScript

- User-centered design methodologies
- Introduction to wireframing and prototyping

Phase 2: Intermediate (2 months)

- Interaction design and user interface patterns
- Responsive web design and mobile-first principles
- Introduction to front-end frameworks (e.g., React, Vue)
- Conducting user testing and feedback incorporation

Phase 3: Advanced (2 months)

- Advanced UI/UX strategies and trends
- Building dynamic web applications with frameworks
- Designing for accessibility and inclusivity
- Final UI/UX and frontend development projects

Internship Phase (1 month)

- Participants can choose internships that align with their specialization within the combined track
- Apply combined UI/UX and frontend development skills in real-world projects
- Gain practical experience and industry insights
- Collaborate with professionals on comprehensive web projects

Make a choice

Both options have their advantages. Separating UI/UX from frontend development allows participants to specialize, while merging them provides a holistic understanding of the entire web development process.

Backend Development Training Program

Phase 1: Foundation (1 month)

Weeks 1-2: Introduction to Backend Development

- Understanding the role of backend in web development
- Basics of server-side programming languages (e.g., Python, Node.js)
- Setting up development environments and version control (Git)

Weeks 3-4: Databases and Data Modeling

- Introduction to relational and non-relational databases
- Designing and creating database schemas
- Basics of SQL queries and database management

Phase 2: Intermediate (2 months)

Weeks 5-6: Building APIs with Node.js (Express.js)

- Introduction to RESTful API design
- Setting up an Express.js server
- Routing and handling HTTP requests
- Data validation and error handling

Weeks 7-8: Database Interaction and Authentication

- Connecting backend to databases (SQL and NoSQL)
- Implementing user authentication and authorization
- Hashing passwords and handling security issues
- Token-based authentication and JWT

Weeks 9-10: Middleware and Error Handling

- Using middleware for request processing
- Implementing error handling and validation middleware
- Building custom middleware functions

Phase 3: Advanced (2 months)

Weeks 11-12: Advanced APIs and RESTful Practices

- Building advanced APIs with Express.js
- Pagination and sorting for large datasets
- Best practices for designing RESTful APIs

Weeks 13-14: Web Security and Authorization

- Understanding common web vulnerabilities (OWASP Top Ten)
- Implementing security measures (CORS, CSRF)
- Role-based access control and permissions

Weeks 15-16: Real-time Communication and Websockets

- Introduction to real-time applications
- Implementing Websockets for real-time communication
- Building a basic chat application

Phase 4: Internship (1 month)

Weeks 17-20: Internship and Practical Application

- Participants engage in internships with local businesses or organizations
- Apply backend development skills in real-world projects
- Gain experience in building APIs, database interaction, and security
- Collaborate with professionals on backend development projects