

Here is our structured process guideline for the 6-month training program, covering each course's daily schedule and the internship period. Given the constraints of class capacity and the need to accommodate multiple participants, we'll need to optimize the schedule. Here's a breakdown of how the training program will look:

## **Training Program Structure**

### **Phase 1: Foundation (1 month)**

- During this phase, participants will establish a strong foundation in the chosen course. The focus will be on introducing basic concepts and building essential skills.

### **Phase 2: Intermediate (2 months)**

- In this phase, participants will delve deeper into the subject, covering intermediate-level topics and more complex concepts.

### **Phase 3: Advanced (2 months)**

- The final phase will focus on advanced topics, allowing participants to master the most sophisticated aspects of their chosen course.

### **Phase 4: Internship (1 month)**

- After completing the 6-month training, participants will engage in internships to apply their knowledge and gain practical experience.

## **Daily Schedule: Monday to Saturday, 9 am to 6 pm**

Each course will have a dedicated day of the week, allowing participants to focus on a single course. Given the hall capacity, a rotation system will be implemented, allowing all participants to attend their chosen course within the 6-month period.

## **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

### **Calendar**

Click [here](#) for the calendar

### **Course Break-down**

Since the each course per class is 2 hours and 30 minutes per day and participants attend that class 3 times per week, we can calculate the number of hours attended for a week and a month as follows:

Duration	Hours Attended Per Class	Hours Attended Per Day	Hours Attended per week (3 days)	Hours Attended Per Month (4 weeks)	Hours Attended for 6 Months (24 weeks)
Per class	2 hours 30 minutes				
Per Day	2 hours 30 minutes	2 hours 30 minutes			
Per Week (3 days)		7 hours 30 minutes	7 hours 30 minutes	30 hours	180 hours
Per Month (4 Weeks)				30 hours	180 hours
Per 6 Months					180 hours

### Explanation of the Table:

**Per Class:** Each class is 2 hours and 30 minutes long.

**Per Day:** Each day consists of one class, which is 2 hours and 30 minutes long.

**Per Week (3 days):** Participants attend classes for 3 days each week, with each class being 2 hours and 30 minutes. Therefore, they spend a total of **7 hours and 30 minutes** in class per week.

**Per Month (4 weeks):** Participants attend classes for 3 days each week, for a total of 12 days in a month. With each class being 2 hours and 30 minutes, participants spend a total of **30 hours** in class per month.

**Per 6 Months (24 weeks):** Over a span of 6 months, with 3 days of classes each week, participants attend a total of 72 classes. With each class being 2 hours and 30 minutes, participants spend a total of **180 hours** in class over 6 months.

**Calculation of the hours:**

Number of Hours Attended for a Week:

2 hours 30 minutes \* 3 days = 7 hours 30 minutes

Number of Hours Attended for a Month (4 weeks):

7 hours 30 minutes \* 4 weeks = 30 hours

Number of Hours Attended for 6 Months (24 weeks):

7 hours 30 minutes \* 24 weeks = 180 hours

So, for a week, participants will attend a total of 7 hours and 30 minutes of classes, for a month (assuming 4 weeks in a month), they will attend a total of 30 hours of classes, and for 6 months, participants will attend a total of 180 hours of classes.