

COURSE BROCHURE · 2026

ENTERPRISE-READY TECHNOLOGY PROGRAMS

# Premium, project-led technology programs built for modern teams.

Present a curated catalog of ICLeaF's flagship programs across **data, development, cloud and DevOps**. Designed to move your team from foundational skills to role-ready expertise through guided learning paths and measurable outcomes.



## STRUCTURED CURRICULUM

15+ programs with clearly defined learning journeys and outcomes.



## HANDS-ON PROJECTS

Real-world case studies, capstone projects and implementations.



## FLEXIBLE DELIVERY

Self-paced learning with dedicated SME support and live cohorts.



## AI-POWERED LEARNING ACROSS ALL COURSES

Every program includes integrated AI assistance for intelligent debugging, code suggestions, concept explanations & personalized learning support.

### COURSE CATALOG



**Advanced SQL**  
40 Hours



**Python**  
40 Hours



**Angular**  
25 Hours



**DevOps**  
40 Hours



**Java**  
40 Hours



**Shell Scripting**  
25 Hours



**Git**  
15 Hours



**Statistical Thinking & Data ...**  
35 Hours



**HTML, CSS & JavaScript**  
40 Hours



**React**  
40 Hours



**Advanced React**  
50 Hours



**C# Programming**  
40 Hours



**C# Web Development with ...**  
40 Hours



**Advanced C#**  
40 Hours



**Consuming AI with C#**  
40 Hours



**15+ COURSES**



**550+ HOURS**



**Self-Paced MODE**



**Included PROJECTS**

### INCLUDED LEARNING AIDS

SME Chat

Video Lectures

Flash Cards

Assessments

Open Lab

Capstone Projects

Live Cohorts

AI Assistance



# Advanced SQL

🕒 40 Hours

📊 Intermediate to Advanced

💻 Self-Study with Cohort Support

Master complex querying, analytics & enterprise databases

## COURSE OVERVIEW

Designed for professionals with foundational SQL knowledge who want to master complex querying, analytics, and enterprise-scale database concepts.

## KEY MODULES

- 1 RDBMS Fundamentals**  
Relational Databases  
Data Warehouse & Lakehouse
- 2 Advanced Querying**  
Joins & Subqueries  
Window Functions & CTEs
- 3 OLAP & OLTP Systems**  
Dimensional Modeling  
Data Warehouse Schemas
- 4 Database Design & Optimization**  
ACID & Normalization  
Indexing & Performance Tuning
- 5 NoSQL Databases**  
CAP Theorem  
DynamoDB & CRUD Operations
- 6 Database Programmability**  
Stored Procedures  
User-Defined Functions

## IDEAL FOR

- 👤 Data Analysts & BI Professionals
- 👤 Database Developers
- 👤 Aspiring Data Engineers

## CAREER VALUE

- ✅ Advanced roles in data analytics & engineering
- ✅ Portfolio-ready capstone project
- ✅ Job-ready SQL expertise

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- ⚡ Flash Cards
- 📄 Assessments
- 🏗️ Capstone Project
- 👥 Live Cohorts
- 🤖 AI Assistance

## LEARNING OUTCOMES

- ✅ Write & optimize complex SQL queries
- ✅ Design scalable relational schemas
- ✅ Apply OLAP and OLTP systems effectively
- ✅ Work with NoSQL databases like DynamoDB



# Python

🕒 40 Hours

📊 Beginner to Advanced

💻 Self-Study with Cohort Support

From fundamentals to advanced problem solving & data tools

## COURSE OVERVIEW

A comprehensive Python course covering basics, OOP, data structures, file handling, APIs, PySpark, testing, and data science libraries.

## KEY MODULES

- 1 Python Basics & OOP**  
Data Types & Control Flow  
Classes, Inheritance & Polymorphism
- 2 Data Structures & Algorithms**  
Stack, Queue, Trees, Graphs  
Sorting & Search Algorithms
- 3 File Handling & Error Management**  
Read/Write Operations  
Exception Handling Best Practices
- 4 APIs, Web Scraping & Concurrency**  
REST APIs & BeautifulSoup  
ThreadPool & ProcessPool Executors
- 5 PySpark, NumPy & Pandas**  
DataFrames & RDDs  
Data Processing & ML Basics

## IDEAL FOR

- 👤 Beginners in programming
- 👤 Data Analysts & Scientists
- 👤 Backend Developers

## CAREER VALUE

- ✅ Full-stack Python development
- ✅ Data science & ML foundations
- ✅ Automation & scripting expertise

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- ⚡ Flash Cards
- 📄 Assessments
- 🏗️ Capstone Project
- 👥 Live Cohorts
- 🛠️ AI Assistance

## LEARNING OUTCOMES

- ✅ Build applications using OOP principles
- ✅ Implement data structures & algorithms
- ✅ Integrate APIs and scrape web data
- ✅ Process data with PySpark, NumPy & Pandas



# Angular

🕒 25 Hours

📶 Intermediate

💻 Self-Study with Cohort Support

Build dynamic single-page applications with Angular & TypeScript

## COURSE OVERVIEW

Learn Angular from web fundamentals to building full end-to-end projects with components, routing, forms, services, and dependency injection.

## KEY MODULES

- 1 Web Fundamentals Refresher**  
HTML, CSS & JavaScript Basics  
DOM Manipulation
- 2 Components & Templates**  
Component Architecture  
Directives: \*ngIf & \*ngFor
- 3 Data Binding & Services**  
One-Way & Two-Way Binding  
Dependency Injection
- 4 Routing & Forms**  
Client-Side Routing  
Template-Driven & Reactive Forms
- 5 End-to-End Project**  
Full Angular Application  
Real-World Architecture

## IDEAL FOR

- 👤 Frontend Developers
- 👤 JavaScript/TypeScript Engineers
- 👤 Full-Stack Developers

## CAREER VALUE

- ✅ Frontend engineering roles
- ✅ Enterprise web application development
- ✅ Angular ecosystem proficiency

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- 📺 Presentations
- 📄 Assessments
- 🏗️ End-to-End Project
- 👤 Live Cohorts
- 💻 AI Assistance

## LEARNING OUTCOMES

- ✅ Build SPAs with Angular components
- ✅ Implement reactive data binding patterns
- ✅ Configure client-side routing
- ✅ Develop production-ready Angular apps



# DevOps

🕒 40 Hours

📊 Intermediate to Advanced

💻 Self-Study with Cohort Support

CI/CD, containers, orchestration, IaC & cloud infrastructure

## COURSE OVERVIEW

A comprehensive DevOps course spanning Linux, Git, CI/CD, Docker, Kubernetes, Terraform, AWS, monitoring, and security practices.

## KEY MODULES

- 1 Linux & Git Essentials**  
Linux Commands & Shell  
Git & GitHub Workflows
- 2 CI/CD Pipelines**  
Jenkins & GitHub Actions  
Build & Package Management
- 3 Docker & Kubernetes**  
Containerization & Images  
Orchestration & Scaling
- 4 Terraform & AWS Cloud**  
Infrastructure as Code  
AWS Services & Architecture
- 5 Monitoring & DevSecOps**  
Logging & Observability  
Security Best Practices

## IDEAL FOR

- 👤 System Administrators
- 👤 Software Engineers
- 👤 Cloud & Infrastructure Engineers

## CAREER VALUE

- ✅ DevOps Engineer & SRE roles
- ✅ Cloud infrastructure expertise
- ✅ End-to-end delivery pipeline mastery

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- 📺 Presentations
- 📄 Assessments
- 🏗️ Capstone Project
- 👤 Live Cohorts
- 💻 AI Assistance

## LEARNING OUTCOMES

- ✅ Build and manage CI/CD pipelines
- ✅ Containerize apps with Docker & Kubernetes
- ✅ Provision infrastructure with Terraform
- ✅ Implement monitoring & security practices



# Java

🕒 40 Hours

📊 Beginner to Intermediate

💻 Self-Study with Cohort Support

Core Java, OOP, collections, multithreading & advanced concepts

## COURSE OVERVIEW

Master Java from basics to advanced topics including OOP, collections, multithreading, JDBC, and Java 8 features like Streams and Lambdas.

## KEY MODULES

- 1 Java Basics & Syntax**  
JVM, JRE, JDK Overview  
Data Types, Variables & Operators
- 2 OOP Concepts**  
Inheritance & Polymorphism  
Encapsulation & Abstraction
- 3 Collections & I/O**  
List, Set, Map & Generics  
File Handling & Serialization
- 4 Multithreading**  
Thread Synchronization  
Inter-thread Communication
- 5 Advanced Java**  
JDBC & Servlets  
Java 8 Streams & Lambdas

## IDEAL FOR

- 👤 Beginner Programmers
- 👤 Backend Developers
- 👤 Computer Science Students

## CAREER VALUE

- ✅ Backend & enterprise Java development
- ✅ Android development foundation
- ✅ Strong CS fundamentals for interviews

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- ⚡ Flash Cards
- 📄 Assessments
- 📝 Assignments
- 👤 Live Cohorts
- 💻 AI Assistance

## LEARNING OUTCOMES

- ✅ Build robust Java applications using OOP
- ✅ Implement multithreaded programs
- ✅ Work with collections & generics
- ✅ Use Java 8 features for modern development



# Shell Scripting

🕒 25 Hours

📊 Beginner to Intermediate

💻 Self-Study with Cohort Support

Automate, manage & control systems with powerful shell scripts

## COURSE OVERVIEW

Learn shell scripting from basics to advanced topics including process management, file handling, regex, error handling, and system administration.

## KEY MODULES

- 1 Shell Basics & Commands**
  - Types of Shells
  - File Ops & Permissions
- 2 Variables & Control Structures**
  - Loops & Conditionals
  - Functions & Arguments
- 3 String & File Operations**
  - Regex & Pattern Matching
  - I/O Redirection & Piping
- 4 Process & Job Management**
  - Foreground & Background Jobs
  - Signals & Traps
- 5 Advanced Scripting**
  - Debugging Techniques
  - Cron Scheduling & Admin Scripts

## IDEAL FOR

- 👤 System Administrators
- 👤 DevOps Engineers
- 👤 Linux Power Users

## CAREER VALUE

- ✅ Linux system administration
- ✅ DevOps automation skills
- ✅ Server management expertise

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- 📺 Presentations
- 📄 Assessments
- 📌 Assignments
- 👥 Live Cohorts
- 🛠️ AI Assistance

## LEARNING OUTCOMES

- ✅ Write efficient automation scripts
- ✅ Manage processes and system resources
- ✅ Handle files and I/O operations
- ✅ Schedule tasks and debug scripts



# Git

🕒 15 Hours

📊 Beginner to Intermediate

💻 Self-Study with Cohort Support

Version control, collaboration, CI/CD & best practices

## COURSE OVERVIEW

Master Git from basics to advanced workflows including branching, merging, GitHub collaboration, CI/CD with GitHub Actions, and security best practices.

## KEY MODULES

- 1 Git Basics & Commits**  
Repository Setup & Cloning  
Staging, Committing & History
- 2 Branching & Merging**  
Feature Branch Workflow  
Conflict Resolution
- 3 Remote Repos & Collaboration**  
Push, Pull & Forking  
Pull Requests & Code Reviews
- 4 Advanced Git**  
Rebase, Stash & Cherry-pick  
Tagging & Release Management
- 5 GitHub Actions & Security**  
CI/CD Workflow Automation  
Branching Strategies & Security

## IDEAL FOR

- 👤 All Software Developers
- 👤 Team Leads & Project Managers
- 👤 Open Source Contributors

## CAREER VALUE

- ✓ Essential for every developer role
- ✓ Team collaboration proficiency
- ✓ Open source contribution readiness

## LEARNING AIDS

- 💬 SME Chat
- 📺 Videos
- 📁 Mini Projects
- 📄 Assessments
- 📁 Final Project
- 👤 Live Cohorts
- 💻 AI Assistance

## LEARNING OUTCOMES

- ✓ Manage code with branching & merging
- ✓ Collaborate via Pull Requests & reviews
- ✓ Automate workflows with GitHub Actions
- ✓ Apply Git security best practices



# Statistical Thinking & Data Analysis

🕒 35 Hours

📊 Beginner to Intermediate

💻 Self-Study with Cohort Support

Statistical thinking, hypothesis testing & data-driven decisions

## COURSE OVERVIEW

Build a strong statistical foundation covering descriptive & inferential statistics, distributions, hypothesis testing, and data-driven decision making.

## KEY MODULES

- 1 Statistical Thinking**  
Descriptive vs Inferential  
Variation & Quality
- 2 Data Types & Distributions**  
Normal, Binomial & Poisson  
Frequency & Visualization
- 3 Data Analysis Fundamentals**  
Correlation & Trend Analysis  
Scaling & Missing Values
- 4 Hypothesis Testing**  
t-test, z-test, ANOVA  
Central Limit Theorem
- 5 Applied Statistical Thinking**  
Data-Driven Storytelling  
Quality & Decision Making

## IDEAL FOR

- 👤 Data Analysts & Scientists
- 👤 Business Intelligence Professionals
- 👤 Quality Assurance Engineers

## CAREER VALUE

- ✅ Data analytics & science roles
- ✅ Business intelligence expertise
- ✅ Foundation for machine learning

## LEARNING AIDS

- 💬 SME Chat
- 🎥 Videos
- 🧪 Pandas Profiling
- 📄 Assessments
- 📝 Assignments
- 👤 Live Cohorts
- 🤖 AI Assistance

## LEARNING OUTCOMES

- ✅ Apply statistical methods to real datasets
- ✅ Visualize and interpret data distributions
- ✅ Perform hypothesis testing confidently
- ✅ Make data-driven decisions with confidence

# HTML, CSS & JavaScript

🕒 40 Hours

📶 Beginner

💻 Self-Study with Cohort Support

Learn modern web development from scratch

## COURSE OVERVIEW

Build a strong foundation in web development by learning HTML, CSS and JavaScript with hands-on projects and responsive web design.

## KEY MODULES

- 1 Intro to Web Development**  
Browser Fundamentals  
Development Environment
- 2 HTML Fundamentals**  
Semantic HTML  
Forms & Accessibility
- 3 CSS Fundamentals**  
Flexbox & Responsive Design  
Box Model & Positioning
- 4 JavaScript Fundamentals**  
DOM Manipulation  
ES6 Features
- 5 Advanced CSS**  
CSS Grid  
Animations & Variables
- 6 Advanced JavaScript**  
Fetch API  
Async Programming
- 7 Projects**  
Portfolio Website  
API-based Application

## IDEAL FOR

- 👤 Students
- 👤 Beginners in Web Development
- 👤 Aspiring Frontend Developers

## CAREER VALUE

- ✓ Strong web development foundation
- ✓ Portfolio-ready projects
- ✓ Preparation for React development

## LEARNING AIDS

- 🎥 Videos
- 📖 Coding Exercises
- 📄 Assessments
- 📁 Projects
- ⚡ Flash Cards
- 🛒 AI Assistance
- 💬 SME Chat

## LEARNING OUTCOMES

- ✓ Build semantic HTML pages
- ✓ Create responsive websites using CSS
- ✓ Develop interactive web applications with JavaScript
- ✓ Complete real-world frontend projects

# React

🕒 40 Hours

📶 Intermediate

💻 Self-Study with Cohort Support

Build modern single-page applications with React

## COURSE OVERVIEW

Master React fundamentals including components, hooks, routing, state management and deployment through practical applications.

## KEY MODULES

- 1 Quick Review of Web Basics**  
HTML/CSS Refresh  
JavaScript Essentials
- 2 Introduction to React**  
JSX  
Components & Props
- 3 React State and Events**  
useState  
Event Handling
- 4 React Effects and Lifecycle**  
useEffect  
Data Fetching
- 5 React Router and Navigation**  
Routing  
Navigation
- 6 Advanced React Concepts**  
Redux & Context API  
Custom Hooks
- 7 React Project and Deployment**  
Real-world Project  
Netlify/Vercel Deployment

## IDEAL FOR

- 👤 Frontend Developers
- 👤 JavaScript Developers
- 👤 UI Engineers

## CAREER VALUE

- ✔ Industry-standard frontend framework
- ✔ Production-ready React portfolio
- ✔ Foundation for Full Stack development

## LEARNING AIDS

- 🎥 Videos
- 📖 Coding Exercises
- 📖 Projects
- 📄 Assessments
- ⚡ Flash Cards
- 🛒 AI Assistance
- 👤 Live Cohorts

## LEARNING OUTCOMES

- ✔ Understand React architecture
- ✔ Build reusable React components
- ✔ Integrate REST APIs
- ✔ Deploy React applications

# Advanced React

 50 Hours

 Advanced

 Self-Study with Cohort Support

Develop enterprise-grade React applications

## COURSE OVERVIEW

Learn advanced React architecture including SSR, routing, API integration, TypeScript and production-ready application development.

## KEY MODULES

- 1

**JSX in Depth**  
Runtime Components  
Advanced JSX
- 2

**Routing in React**  
Dynamic Routes  
Nested Routing
- 3

**API Calls with React**  
Axios  
Error Handling
- 4

**Server Side Rendering**  
Server Components  
SSR Concepts
- 5

**React Ecosystem**  
Webpack  
TypeScript & Vite
- 6

**Advanced React Concepts**  
Redux  
Performance Optimization
- 7

**React Project and Deployment**  
Production Project  
Testing & Deployment

## IDEAL FOR

-  Experienced React Developers
-  Frontend Architects
-  Full Stack Developers

## CAREER VALUE

-  Senior Frontend Developer skills
-  Enterprise React expertise
-  Production deployment experience

## LEARNING AIDS

-  Videos
-  Projects
-  Assessments
-  Flash Cards
-  AI Assistance
-  SME Chat
-  Live Cohorts

## LEARNING OUTCOMES

-  Master React ecosystem tools
-  Develop production-ready SSR applications
-  Implement advanced state management
-  Optimize application performance

# C# Programming

🕒 40 Hours

📶 Beginner to Intermediate

💻 Self-Study with Cohort Support

Master modern C# and .NET application development

## COURSE OVERVIEW

Learn C#, object-oriented programming, .NET Core, Entity Framework and REST API development with practical labs.

## KEY MODULES

- 1 C# Fundamentals**  
OOP Concepts  
Exception Handling
- 2 Advanced C#**  
LINQ  
Async Programming
- 3 .NET Core Essentials**  
Dependency Injection  
Logging
- 4 Entity Framework Core**  
ORM  
Database Migrations
- 5 API Development**  
REST APIs  
Swagger/OpenAPI

## IDEAL FOR

- 👤 .NET Developers
- 👤 Software Engineers
- 👤 Backend Developers

## CAREER VALUE

- ✅ .NET Developer career path
- ✅ Enterprise backend development
- ✅ REST API expertise

## LEARNING AIDS

- 🎥 Videos
- 📖 Coding Labs
- 📖 Projects
- 📄 Assessments
- ⚡ Flash Cards
- 🛒 AI Assistance
- 💬 SME Chat

## LEARNING OUTCOMES

- ✅ Understand C# syntax and OOP
- ✅ Write asynchronous applications
- ✅ Use .NET Core effectively
- ✅ Build REST APIs with EF Core

# C# Web Development with ASP.NET

 40 Hours

 Intermediate

 Self-Study with Cohort Support

Build secure enterprise web applications using ASP.NET Core

## COURSE OVERVIEW

Develop modern ASP.NET Core applications using Razor Pages, Blazor, Entity Framework and REST API integration.

## KEY MODULES

- 1

**Introduction to ASP.NET Core**  
Framework Overview  
Project Structure
- 2

**Razor Pages**  
Routing  
Validation
- 3

**Blazor Basics**  
Components  
Lifecycle
- 4

**State Management**  
Dependency Injection  
Application State
- 5

**Data Access**  
Entity Framework  
CRUD Operations
- 6

**API Integration**  
REST APIs  
HttpClient
- 7

**Hands-on Project**  
Authentication  
Deployment

## IDEAL FOR

-  .NET Developers
-  Backend Developers
-  Full Stack Developers

## CAREER VALUE

-  Enterprise web development
-  Full Stack .NET skills
-  Production-ready application development

## LEARNING AIDS

-  Videos
-  Projects
-  Assessments
-  SME Chat
-  Flash Cards
-  AI Assistance
-  Live Cohorts

## LEARNING OUTCOMES

-  Understand ASP.NET ecosystem
-  Build secure web applications
-  Integrate APIs and databases
-  Use Entity Framework Core

# Advanced C#

🕒 40 Hours

📶 Advanced

💻 Self-Study with Cohort Support

Build scalable enterprise and microservices applications

## COURSE OVERVIEW

Master advanced C# concepts including microservices, LINQ optimization, EF Core, concurrency and multithreaded programming.

## KEY MODULES

- 1 Introduction to Microservices**
  - REST Microservices
  - JWT & OAuth
- 2 Advanced LINQ**
  - Expression Trees
  - Performance Tuning
- 3 Entity Framework Core**
  - Relationships
  - Performance Profiling
- 4 Concurrency in EF & Databases**
  - Isolation Levels
  - Transactions
- 5 Multithreading and Parallelism**
  - TPL
  - PLINQ
- 6 Capstone Project**
  - Enterprise Application
  - Microservices

## IDEAL FOR

- 👤 Senior .NET Developers
- 👤 Backend Engineers
- 👤 Solution Architects

## CAREER VALUE

- ✔️ Senior .NET Developer skills
- ✔️ Enterprise architecture knowledge
- ✔️ Microservices expertise

## LEARNING AIDS

- 🎥 Videos
- 📖 Projects
- 📄 Assessments
- ⚡ Flash Cards
- 🗣️ AI Assistance
- 💬 SME Chat
- 👥 Live Cohorts

## LEARNING OUTCOMES

- ✔️ Build microservices
- ✔️ Optimize complex LINQ queries
- ✔️ Handle database concurrency
- ✔️ Develop parallel applications

# Consuming AI with C#

🕒 40 Hours

📶 Intermediate to Advanced

💻 Self-Study with Cohort Support

Integrate Generative AI into enterprise .NET applications

## COURSE OVERVIEW

Learn to integrate LLMs, Vision, Speech and Embedding services into C# applications while managing token usage, costs and enterprise scalability.

## KEY MODULES

- 1 Foundation of AI Services**
  - LLMs
  - Vision & Speech APIs
- 2 C# Essentials for AI Integration**
  - HttpClient
  - JSON & Dependency Injection
- 3 Working with LLMs**
  - Prompt Engineering
  - Token Management
- 4 Consuming Other AI Services**
  - Vision APIs
  - Embeddings
- 5 Token and Cost Management**
  - Cost Optimization
  - Monitoring
- 6 Enterprise Integration and Scaling**
  - ASP.NET Integration
  - Caching & Scaling

## IDEAL FOR

- 👤 .NET Developers
- 👤 AI Engineers
- 👤 Enterprise Application Developers

## CAREER VALUE

- ✅ AI application development skills
- ✅ Enterprise AI integration expertise
- ✅ Future-ready .NET development

## LEARNING AIDS

- 🎥 Videos
- 📖 Hands-on Labs
- 📄 Assessments
- 🎮 AI Playground
- ⚡ Flash Cards
- 💬 SME Chat
- 🛠️ AI Assistance

## LEARNING OUTCOMES

- ✅ Integrate AI services using C#
- ✅ Build enterprise AI applications
- ✅ Optimize token usage and costs
- ✅ Implement scalable AI solutions

# Ready to upskill your team?

Bring ICLeaF's structured curriculum, guided projects and flexible delivery models to your organization.

Create tailored learning paths that align to your roles, technology stack and growth plan.

Share this brochure with stakeholders or connect with us to design a custom learning journey.

SME Chat

Video Lectures

Assessments

Capstone Projects

Open Lab

Cohort Sessions

Available across **self-paced, blended and cohort-based models** with SME interaction and lab support.



