



IT Expert
TECHNOLOGY



Data Science with python (Complete course)

NOW YOU CAN CODE

100% PLACEMENT ASSISTANCE



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COURSE OVERVIEW

A practical program to become job-ready in Data Analytics, Machine Learning and AI.

This Data Science Professional Course is designed for students, freshers and working professionals who want strong practical skills in Python, Statistics, SQL, Data Visualization, Power BI/Tableau, Machine Learning, Deep Learning, NLP, GenAI and Deployment. The course focuses on hands-on coding, real business datasets, project portfolio building and interview preparation.

Practical First

- Coding exercises with real datasets
- Case-study based learning
- Hands-on project implementation

Industry Tools

- Python, SQL and Power BI/Tableau
- Jupyter, VS Code and GitHub
- Scikit-learn, Pandas and NumPy

Project Portfolio

- Mini projects and business datasets
- Live project-style applications
- Final capstone and deployment

Career Support

- Resume and LinkedIn guidance
- Mock interviews and technical revision
- Project presentation practice

Best Suitable For

- BCA, BCS, BSc, BE/BTech, MCA, MSc, Diploma, MBA and graduate backgrounds.
- Freshers and final-year students wanting project portfolio and interview preparation.
- Working professionals moving into analytics, reporting, automation or ML roles.

WHAT YOU WILL LEARN

Clear skill outcomes and professional confidence after completion.

1 Data Science Skills

- Understand the complete data science life cycle.
- Clean, transform, analyze and visualize datasets.
- Apply statistics, probability and hypothesis testing.
- Build supervised and unsupervised ML models.
- Create dashboards and business insight reports.
- Build simple AI solutions and deployed applications.

2 Professional Skills

- Prepare interview-ready project documentation.
- Build GitHub portfolio and resume keywords.
- Practice Python, SQL, Statistics and ML interview questions.
- Explain business case studies and model outcomes clearly.
- Understand ethical AI and model limitations.

Why This Course Works

- Learn by building - not only watching theory.
- Practical labs based on real business datasets and case studies.
- Complete workflow: Python, EDA, SQL, dashboards, ML, NLP, AI and deployment.
- Interview-focused portfolio with project documentation and presentation support.

Training Type

Practical + Project-Based

Mode

Classroom / Online / Hybrid

Learning Focus

Python | SQL | ML | BI

Certification

Support as per Policy

ONE COMPLETE COURSE PLAN

One professional course plan with practical training, projects and 100% Placement Assistance.

DATA SCIENCE WITH PYTHON COURSE - ALL BENEFITS INCLUDED

- Python, Statistics, SQL, EDA and Data Visualization
- Power BI/Tableau dashboard development
- Machine Learning, Deep Learning, NLP and GenAI basics
- Deployment, GitHub documentation and final capstone
- Resume, LinkedIn and GitHub portfolio support
- Mock interviews and technical preparation
- Certification support as per institute policy
- 100% Placement Assistance

COURSE FEE DETAILS & STUDENT BENEFITS

Regular Course Fee

Rs. 60,000

Discounted Course Fee

Rs. 50,000

One-Time Payment Offer

Rs. 45,000

IMPORTANT FEE & PLACEMENT CLARIFICATIONS

- IT Expert Technology provides 100% Placement Assistance with resume guidance, mock interviews and job opportunity support.
- Placement outcome depends on student skills, attendance, project completion, interview performance and employer selection.
- Students receive dashboard, portfolio, LinkedIn and project presentation support.
- Course discounts and fee offers are valid only when recorded on the official fee receipt.

COURSE ROADMAP

Step-by-step professional learning journey with practical milestones.

1

Phase 1 | Foundation

Python, SQL, statistics, probability and data handling.

2

Phase 2 | Analytics

EDA, visualization, dashboards and business insight reporting.

3

Phase 3 | Machine Learning

Algorithms, evaluation, feature engineering and model tuning.

4

Phase 4 | AI + Deployment

Deep learning, NLP, GenAI basics, APIs and app deployment.

5

Phase 5 | Career Portfolio

Live projects, documentation, resume, GitHub and interview preparation.

After Completing This Roadmap, Student Can

- Analyze datasets, build dashboards and explain business insights.
- Train, evaluate and improve ML models using professional workflow.
- Deploy a simple ML app and present it with GitHub documentation.
- Face interview discussions with project-based confidence.

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

1 Data Science Foundation & Career Roadmap

KEY TOPICS

- What is Data Science, Data Analytics, AI and Machine Learning.
- Data science life cycle and business problem understanding.
- Industry roles, resume skills, portfolio planning and interview roadmap.
- Responsible data use, model limitations and ethics basics.

PROFESSIONAL OUTCOME

- Clear roadmap from beginner level to project-ready data science profile.

HANDS-ON LAB

- Map a business problem to the data science workflow.

MINI PROJECT

- Create a career roadmap and project portfolio plan.

INTERVIEW FOCUS

- Life cycle, roles and business use cases.

DELIVERABLE

- Roadmap sheet plus portfolio checklist.

Data Science

AI

Career

Roadmap

2 Python Programming for Data Science

KEY TOPICS

- Python setup, Jupyter Notebook, VS Code and virtual environments.
- Variables, data types, operators, conditions, loops and functions.
- Lists, tuples, dictionaries, sets, files and exceptions.
- Coding practice for cleaning, calculations and automation tasks.

PROFESSIONAL OUTCOME

- Well-commented Python notebook with outputs.

HANDS-ON LAB

- Write Python programs for cleaning and automation.

MINI PROJECT

- Create a reusable data utility script.

INTERVIEW FOCUS

- Python basics, collections and error handling.

DELIVERABLE

- Python notebook plus code outputs.

Python

Jupyter

VS Code

Functions

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

3 NumPy, Pandas & Data Wrangling

KEY TOPICS

- NumPy arrays, indexing, slicing, broadcasting and operations.
- Pandas Series/DataFrame with CSV, Excel and JSON data.
- Filtering, sorting, grouping, merging, joins and pivot tables.
- Missing values, duplicates, outliers and data type conversions.

PROFESSIONAL OUTCOME

- Clean dataset with preprocessing notebook and summary.

HANDS-ON LAB

- Clean messy datasets for analysis.

MINI PROJECT

- Sales/customer data preparation using Pandas.

INTERVIEW FOCUS

- Pandas operations and missing values.

DELIVERABLE

- Clean dataset plus preprocessing notebook.

Pandas

NumPy

Cleaning

CSV

4 Statistics & Probability

KEY TOPICS

- Mean, median, mode, variance and standard deviation.
- Probability, distributions, sampling and Central Limit Theorem.
- Correlation, covariance, hypothesis testing and p-values.
- A/B testing and business interpretation of statistical output.

PROFESSIONAL OUTCOME

- Statistical report with business recommendations.

HANDS-ON LAB

- Calculate summaries and interpret distributions.

MINI PROJECT

- A/B testing decision case.

INTERVIEW FOCUS

- Variance, p-value, correlation and distributions.

DELIVERABLE

- Statistical report with recommendations.

Statistics

Probability

Hypothesis

A/B Testing

MODULE-WISE SYLLABUS

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5 Data Visualization & EDA

KEY TOPICS

- EDA workflow for numerical and categorical data.
- Matplotlib and Seaborn charts for reporting.
- Histograms, boxplots, scatter plots, heatmaps and trends.
- Storytelling with data: insights and recommendations.

PROFESSIONAL OUTCOME

- EDA notebook and presentation-ready insights.

HANDS-ON LAB

- Create charts and observations from a dataset.

MINI PROJECT

- Analyze sales, healthcare or HR data.

INTERVIEW FOCUS

- EDA, chart selection and outliers.

DELIVERABLE

- EDA notebook plus insight report.

EDA

Visualization

Matplotlib

Seaborn

6 SQL & Database Analytics

KEY TOPICS

- Relational tables, keys and SQL workflow.
- SELECT, WHERE, GROUP BY, HAVING, ORDER BY and joins.
- Subqueries, views and analytics data extraction.
- Connect Python with SQL databases for analysis.

PROFESSIONAL OUTCOME

- SQL scripts, query outputs and analytics notes.

HANDS-ON LAB

- Write SQL queries for summaries and joins.

MINI PROJECT

- Analytics report using SQL and Python.

INTERVIEW FOCUS

- Joins, subqueries and aggregate functions.

DELIVERABLE

- SQL scripts plus output report.

SQL

Database

Joins

Analytics

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

7 Machine Learning Foundation

KEY TOPICS

- ML life cycle: framing, preparation and modelling.
- Training, validation, testing and generalization.
- Regression, classification and clustering use cases.
- Scikit-learn pipeline, fit, predict and evaluation.
- Bias, variance, overfitting and regularization.

PROFESSIONAL OUTCOME

- ML workflow notebook with training and evaluation.

HANDS-ON LAB

- Train basic ML models and compare results.

MINI PROJECT

- Convert a business problem into ML workflow.

INTERVIEW FOCUS

- Train-test split, pipelines and evaluation.

DELIVERABLE

- ML workflow notebook.

ML

Scikit-learn

Pipeline

Evaluation

8 Supervised Machine Learning

KEY TOPICS

- Linear Regression, Ridge and Lasso.
- Logistic Regression and classification decisions.
- KNN, Naive Bayes, Decision Tree, Random Forest and SVM.
- Projects: price prediction, churn and disease prediction.

PROFESSIONAL OUTCOME

- Model comparison report with final model justification.

HANDS-ON LAB

- Build regression and classification models.

MINI PROJECT

- Prediction project for churn, loan or disease.

INTERVIEW FOCUS

- Trees, random forest, logistic regression and SVM.

DELIVERABLE

- Model comparison report.

Regression

Classification

RF

SVM

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

9 Unsupervised Learning & Evaluation

KEY TOPICS

- K-Means, hierarchical clustering and cluster profiling.
- PCA basics and cluster visualization.
- Classification metrics: precision, recall, F1 and ROC-AUC.
- Regression metrics: MAE, RMSE, R2 and MAPE.
- Cross-validation and tuning.

PROFESSIONAL OUTCOME

- Segmentation notebook and evaluation scorecard.

HANDS-ON LAB

- Apply clustering and evaluation metrics.

MINI PROJECT

- Customer segmentation for marketing decisions.

INTERVIEW FOCUS

- K-Means, ROC-AUC, RMSE and F1.

DELIVERABLE

- Segmentation notebook plus scorecard.

Clustering

PCA

Metrics

Tuning

10 Feature Engineering & ML Pipelines

KEY TOPICS

- Encoding categorical variables and scaling features.
- Feature selection, importance and leakage prevention.
- Handling imbalanced datasets using practical techniques.
- Reusable ML pipelines and saved prediction models.

PROFESSIONAL OUTCOME

- Production-style pipeline file and saved model artifact.

HANDS-ON LAB

- Engineer features and build preprocessing pipelines.

MINI PROJECT

- Improve model accuracy using feature selection.

INTERVIEW FOCUS

- Scaling, encoding, leakage and imbalance.

DELIVERABLE

- Pipeline file plus saved model.

Features

Pipeline

Model

Tuning

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

11 Deep Learning & Neural Networks

KEY TOPICS

- Neural networks, activation functions and backpropagation.
- ANN workflow for tabular data prediction.
- CNN fundamentals for image classification.
- RNN/LSTM basics for sequence problems.
- TensorFlow/Keras or PyTorch basics.

PROFESSIONAL OUTCOME

- Deep learning notebook with results summary.

HANDS-ON LAB

- Create a neural network and review training curves.

MINI PROJECT

- Image or tabular deep learning demo.

INTERVIEW FOCUS

- ANN, CNN, epochs and backpropagation.

DELIVERABLE

- Deep learning notebook.

Deep Learning

ANN

CNN

Keras

12 NLP, GenAI, BI Tools & Deployment

KEY TOPICS

- Text preprocessing, TF-IDF and sentiment analysis.
- Embeddings and text classification basics.
- GenAI, prompting and LLM use cases for data science.
- Power BI/Tableau dashboards, KPIs and stories.
- Streamlit/Flask deployment and GitHub portfolio.

PROFESSIONAL OUTCOME

- Capstone presentation, dashboard link and deployed demo.

HANDS-ON LAB

- Build sentiment model, dashboard and simple app.

MINI PROJECT

- End-to-end project from data to deployment.

INTERVIEW FOCUS

- NLP, prompts, dashboards and deployment.

DELIVERABLE

- Capstone plus deployed demo.

NLP

GenAI

Power BI

Deployment

TOOLS & TECHNOLOGIES

Hands-on exposure to a modern data science and analytics stack.

Programming

- Python
- Jupyter Notebook
- VS Code
- NumPy
- Pandas
- Matplotlib

Machine Learning

- Scikit-learn
- Regression
- Classification
- Clustering
- Evaluation
- ML Pipelines

AI & Deployment

- TensorFlow/Keras
- NLP Basics
- GenAI Basics
- Streamlit
- Flask
- Model Saving

Analytics Tools

- SQL
- Excel Basics
- Power BI
- Tableau
- Dashboarding
- KPI Storytelling

Workflow

- Git
- GitHub
- README
- Documentation
- Debugging
- Project Structure

Career Portfolio

- Live Projects
- Capstone
- Deployment Demo
- Resume Projects
- Mock Interview
- Presentation

Data Science Skill Outcome

- Build complete data analysis and machine learning workflows.
- Create dashboards and deployed ML demonstrations for portfolio presentation.
- Explain business insights, model evaluation and project decisions in interviews.

PORTFOLIO PROJECTS

Real-world projects for resume, GitHub and interview explanation.

Project Name	Technology Focus	Outcome
Sales KPI Dashboard	Python / Power BI	Business insights
Customer Churn Prediction	Classification	Retention model
House Price Prediction	Regression	Price estimation
Loan Approval Prediction	ML Classification	Risk analysis
Healthcare Disease Prediction	Classification	Prediction demo
Employee Attrition Analysis	EDA / ML	HR insights
Fraud Detection	Imbalanced ML	Anomaly identification
Sentiment Analysis	NLP	Text insights
Recommendation System	ML Concept	Product/movie suggestions
Final Capstone App	Streamlit / Flask	Deployed solution

Project Development Support

- Dataset selection, cleaning, analysis, model training and insight explanation.
- Dashboard creation, ML app deployment and project documentation support.
- GitHub upload, README writing, screenshots and final presentation guidance.

CERTIFICATION & STUDENT BENEFITS

Professional support beyond classroom learning.

Certification Included

- IT Expert Technology course completion certificate after successful attendance, assignments and project completion.
- External certification support as per institute policy and provider availability.
- Project completion support for interview and portfolio presentation.

Student Benefits

- Practical training with real datasets and business problem statements.
- Trainer support for doubts, assignments, project errors and revision.
- Resume, LinkedIn, GitHub portfolio and mock interview support.
- Batch-wise tests, project reviews and feedback.

Professional Development Support

- Resume building with data science project keywords and measurable achievements.
- LinkedIn profile improvement and job search guidance.
- GitHub project upload with README, screenshots and explanation notes.
- Mock interviews with Python, SQL, Statistics, ML and project-based questions.
- Aptitude, communication and HR preparation as per batch schedule.
- Interview-ready explanation of problem, approach, result and impact.

Career-Ready Outcome

- Resume + GitHub + Projects + Dashboard + Interview Practice. Students finish with a clear portfolio and confidence to explain data science solutions.

PLACEMENT ASSISTANCE & STUDENT BENEFITS

Career support, eligibility requirements and professional development guidance.

100% PLACEMENT ASSISTANCE INCLUDES

- Resume preparation with data science keywords and project impact statements.
- LinkedIn and GitHub portfolio guidance with capstone presentation support.
- Mock interviews, technical question practice and HR preparation sessions.
- Job opportunity sharing, interview coordination and follow-up support.
- Guidance for explaining Python, SQL, Statistics, ML, dashboards and deployment.

STUDENT RESPONSIBILITIES

- Maintain regular attendance or complete approved make-up sessions.
- Complete assignments, tests, practical tasks, projects and capstone submission.
- Prepare updated resume, LinkedIn profile, GitHub portfolio and documentation.
- Attend suitable interview opportunities shared or arranged by the institute.
- Maintain discipline, professional communication and accurate information.

Placement Outcome Note

Placement assistance supports students in career preparation and interview opportunities. Final selection depends on student performance, eligibility and employer requirements.

STUDENT BENEFITS & CAREER SUPPORT

- Live project guidance with dashboard, capstone and deployment support.
- Resume, LinkedIn and GitHub portfolio preparation.
- Mock interviews, technical revision and HR preparation.
- Job opportunity sharing and interview coordination support.

ADMISSION PROCESS

Simple onboarding flow from counselling to certification and placement readiness.

1

Counselling and complete course plan explanation.

2

Student admission form and course fee confirmation.

3

Fee payment/registration and official receipt generation.

4

Batch allocation and software setup guidance.

5

Course start, attendance tracking, assignments and live project development.

6

Course completion, certification and placement-assistance process.

Documents Required

- Photo ID proof such as Aadhaar, PAN, Passport or Driving License.
- Education proof or latest qualification document.
- Passport-size photo if required for institute records.
- Updated resume for placement assistance students.

FINAL CAPSTONE & PORTFOLIO CHECKLIST

Build a complete professional proof of skills.

Capstone Project Flow

- Problem statement and dataset understanding.
- Data cleaning, EDA and insight generation.
- Feature engineering and model training.
- Model evaluation and improvement.
- Dashboard or ML app deployment.
- Final documentation and presentation.

Portfolio Checklist

- GitHub repository with clean structure.
- README with objective, tools and screenshots.
- Notebook/code file with comments and outputs.
- Business insights and model results summary.
- Resume bullet points for project explanation.
- Interview Q&A preparation notes.

How Students Present Their Final Work

- Business problem and why it matters.
- Dataset source, data quality and cleaning decisions.
- Important EDA observations and visual insights.
- Model selection, performance metrics and limitations.
- Dashboard/app demo and deployment approach.
- Final recommendation and improvement scope.

Outcome

- Interview-ready portfolio with projects, documentation, dashboard/demo and confidence.

CAREER PREPARATION

Build confidence for interviews and job applications.

Student Career Support

- Resume building with data science project keywords.
- GitHub profile setup and project portfolio guidance.
- LinkedIn profile improvement and job search guidance.
- Mock interviews, HR questions and technical Q&A practice.
- Aptitude, communication and project presentation support.
- Interview explanation scripts for projects and case studies.

Python

Loops, functions, collections

SQL

Joins, grouping, subqueries

Statistics

P-value, correlation, distributions

ML

Models, metrics, tuning

Projects

Problem, approach, result

HR

Communication and confidence

Placement-Focused Mindset

- Students learn how to explain projects in simple business language.
- Interview practice connects technical skills with real-world problem solving.
- Career support focuses on skill presentation, documentation and professional readiness.

IMPORTANT BROCHURE NOTES

Clear expectations for course, certification, fees and placement assistance.

Course & Batch Notes

- Final course duration, batch timing and mode will be confirmed during counselling.
- Syllabus topics may be updated based on industry demand and student readiness.
- Batch progress depends on attendance, assignments, practical completion and project reviews.

Certification Notes

- IT Expert Technology certificate is issued after successful completion criteria are met.
- External certification examination fees, vouchers and provider rules must be confirmed at admission.
- Certification support depends on institute policy and relevant certification path.

Fees & Payment Notes

- Regular course fee: Rs. 60,000; discounted course fee: Rs. 50,000; one-time payment offer: Rs. 45,000.
- Fee plans, discounts and special offers are valid only when recorded on the official receipt.
- There is one complete course plan with listed practical training and career preparation benefits.

Placement Assistance Notes

- IT Expert Technology provides 100% Placement Assistance through guidance, portfolio support, mock interviews and opportunity coordination.
- Placement Assistance does not assure selection, employment, salary, company, location or joining.
- Students must complete attendance, assignments, projects and interview preparation for support.

JOIN DATA SCIENCE COURSE

Start learning with practical training and project-based mentoring

ADMISSIONS OPEN

IT Expert Technology

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Course Tracks

Python | SQL | ML | AI

Career Support

100% Placement Assistance

Portfolio

Projects + GitHub + Demo

BOOK YOUR COUNSELLING SESSION TODAY

ONE COMPLETE COURSE PLAN | 100% PLACEMENT ASSISTANCE

Brochure Note: Final course duration, batch timing, fee plan, certification details, placement assistance details and special offers will be confirmed during admission counselling and on the official fee receipt.