KNIME for Visual Data Science Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

KNIME for Visual Data Science Training Course empowers professionals to seamlessly integrate data preparation, advanced analytics, and machine learning into intuitive, visual workflows. This course is designed for learners to gain hands-on expertise in transforming raw data into meaningful visualizations, predictive models, and automated processes without extensive coding experience. Leveraging KNIME's cutting-edge platform, participants will master techniques to streamline data analysis, enhance decision-making, and optimize business intelligence initiatives.

Through this training, participants will explore end-to-end data science workflows, including data integration, visualization, predictive modeling, and deployment, using a robust and scalable environment. The program emphasizes practical case studies, real-world datasets, and interactive exercises, ensuring learners develop competencies that directly translate to professional success. By the end of the course, attendees will be proficient in harnessing KNIME to solve complex business problems, optimize operational efficiency, and generate insightful visual storytelling from data.

Programme Curriculum

KNIME for Visual Data Science Training Course

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5 days

Course Objectives

1. Master KNIME Analytics Platform for visual data science.
2. Build end-to-end data workflows for structured and unstructured datasets.
3. Implement data preprocessing and feature engineering for accurate models.
4. Create interactive dashboards and dynamic visualizations.
5. Apply predictive analytics using machine learning algorithms.
6. Conduct advanced data mining for actionable business insights.
7. Automate repetitive data processes with workflow automation.
8. Perform text analytics and sentiment analysis on social media and text data.
9. Integrate Python, R, and SQL nodes for advanced analytics.
10. Leverage real-world case studies for hands-on problem solving.
11. Deploy models and workflows for business intelligence applications.
12. Understand data governance, quality, and reproducibility best practices.
13. Enhance decision-making capabilities with data-driven storytelling.

Target Audience

1. Data Scientists & Analysts
2. Business Intelligence Professionals
3. Machine Learning Enthusiasts
4. Marketing Analysts
5. IT Professionals & Developers
6. Research Scholars & Academicians
7. Project Managers & Decision Makers
8. Anyone interested in **visual and predictive analytics**

Course Modules

Module 1: Introduction to KNIME and Visual Data Science

- Overview of **KNIME Analytics Platform**
- Understanding **visual workflows**
- Introduction to **nodes and data pipelines**
- Setting up your **workspace**
- Case Study: **Sales Data Exploration**

Module 2: Data Integration and Preprocessing

- Importing **structured and unstructured data**
- Handling **missing values and outliers**

- **Data transformation** and normalization
- Combining **multiple datasets**
- Case Study: **Customer Data Cleansing**

Module 3: Data Visualization Techniques

- Creating **interactive charts and graphs**
- Advanced **visual analytics** techniques
- **Conditional formatting** for dashboards
- **Geospatial and time-series visualizations**
- Case Study: **Marketing Campaign Performance Dashboard**

Module 4: Feature Engineering & Selection

- Understanding **feature importance**
- Creating **derived variables**
- **Dimensionality reduction** techniques
- Handling **categorical and numerical features**
- Case Study: **Predicting Customer Churn**

Module 5: Machine Learning with KNIME

- Overview of **supervised and unsupervised learning**
- Implementing **classification and regression models**
- Model evaluation and **cross-validation**
- Optimizing algorithms with **hyperparameter tuning**
- Case Study: **Credit Risk Scoring**

Module 6: Text Mining and Sentiment Analysis

- Importing and preprocessing **text data**
- Applying **NLP techniques**
- Sentiment scoring and topic modeling
- Integrating **social media analytics**
- Case Study: **Product Review Analysis**

Module 7: Workflow Automation & Advanced Analytics

- Automating repetitive workflows
- Integrating **Python, R, and SQL scripts**
- Scheduling tasks and workflow monitoring
- Building **reusable workflow templates**
- Case Study: **Automated Reporting System**

Module 8: Deployment and Business Applications

- Deploying models for **decision support**
- Creating **interactive dashboards for executives**
- Data governance and workflow **reproducibility**
- Applying KNIME in **real-world business scenarios**
- Case Study: **Sales Forecasting & Inventory Optimization**

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com