

ISACA Data Science Fundamentals – ITCA

Course Duration : 24 Hours

Course code : ITCA-DSF

1. Course Overview

The ISACA Data Science Fundamentals – ITCA course provides a foundational understanding of data science concepts, tools, and methodologies used to extract insights from data. This course is designed for beginners and early-career professionals who want to understand how data is collected, processed, analyzed, and used for decision-making. Learners gain practical exposure to data analytics, statistics, data visualization, and ethical considerations in data science.

2. What you'll learn?

- Fundamentals of data science and analytics
- Data types, data collection, and data preparation
- Basics of statistics and data analysis
- Introduction to data visualization techniques
- Overview of machine learning and AI concepts
- Data governance, ethics, and privacy fundamentals

3. Target Audience

- Students and fresh graduates entering data-related roles
- Beginners interested in data science and analytics
- IT and non-IT professionals transitioning to data roles
- Business professionals seeking data literacy
- Individuals preparing for ISACA ITCA certifications

4. Pre-Requisites

- Basic computer and mathematical knowledge
- No prior experience in data science or programming required

5. Course Content (Modules)

Module 1: Introduction to Data Science

- Data science concepts and lifecycle
- Role of data science in business

Module 2: Data Collection and Data Preparation

- Data sources and data types
- Data cleaning and preprocessing basics

Module 3: Data Analysis and Statistics Fundamentals

- Descriptive and basic inferential statistics
- Data analysis techniques

Module 4: Data Visualization and Reporting

- Data visualization principles
- Communicating insights using charts and dashboards

Module 5: Introduction to Machine Learning and Data Governance

- Overview of machine learning concepts
- Data ethics, governance, and privacy