



Introduction to R Programming for Data Science & Analytics

JumpStart R Programming, Data-Focused Skills | Foundation, Vectors, DataFrames, Visualization & More

www.triveratech.com

Course Snapshot

- **Course:** TTDS6683: Introduction to R Programming for Data Science & Analytics
- **Duration:** 3 days
- **Skill Level:** Introductory topics for intermediate skilled attendees
- **Audience:** This comprehensive course provides a solid foundation in core R programming for experienced Data Science Analysts, Developers, Administrators, Architects, and technical Managers who need to leverage R for analytics.
- **Hands-on Learning:** This course combines expert lecture, real-world demonstrations and group discussions with machine-based practical labs and exercises. Student machines are required.
- **Delivery Options:** This course is available for **onsite private classroom presentation, live online virtual presentation**, or can be presented in a **flexible blended learning format** for combined onsite and remote attendees. Please also ask about our **Self-Paced / Video / QuickSkills or Mini-Camp Flex Hours / Short Course** options.
- **Public Schedule:** This course has active dates on our live-online open enrollment **Public Schedule**.
- **Customizable:** This course agenda, topics and labs can be further adjusted to target your specific training skills objectives, tools and learning goals. Please inquire for details.

Overview

R is a functional programming environment for business analysts and data scientists. It's a language that many non-programmers can easily work with, naturally extending a skill set that is common to high-end Excel users. It's the perfect tool for when the analyst has a statistical, numerical, or probabilities-based problem based on real data, and they've pushed Excel past its limits.

Introduction to R Programming for Data Science & Analytics is a hands-on course that presents common scenarios encountered in analysis and present practical solutions. This course provides indoctrination in the practical use of the umbrella of technologies that are on the leading edge of data science development focused on R and related tools. Working in a hands-on learning environment, led by our expert practitioner, you'll learn R and its ecosystem, and where it's a better a tool than Excel.

Learning Objectives

This course is approximately **50% hands-on**, combining expert lecture, real-world demonstrations and group discussions with machine-based practical labs and exercises. Working in a hands-on learning environment you'll explore:

- Data Science essentials
- R programming Essentials
- Variables and Types, Loops, R Scalars, Vectors, and Matrices
- String and Text Manipulation, List & Functions
- DataFrames and File I/O
- Reading data from files and data prep
- Visualization
- Exploration With Dplyr
- Statistical Modeling With R
- Data Exploration
- Regressions
- R and Big Data

Need different skills or topics? If your team requires different topics or tools, additional skills or custom approach, this course may be further adjusted to accommodate. We offer additional R Programming, Python, data science, AI / machine learning / deep learning and other related topics that may be blended with this course for a track that best suits your needs. Our team will collaborate with you to understand your needs and will target the course to focus on your specific learning objectives and goals.

Audience & Pre-Requisites

This course, geared for **Data Analysts and Data Scientists** who need to learn the essentials of how to program in R. Students should have intermediate-level experience in their field, and prior experience working with programming languages.

Follow On Courses: Our core R and Python programming, data science, analytics, AI and machine learning training courses provide students with a solid foundation for continued learning based on role, goals, or their areas of specialty. Please inquire for next step recommendations based on your goals.

Enhanced Learning Services: Please also ask about our **Pre-Training Class OnRamp & Prep / Primer offerings, Skills Gap Assessment Services, Case Studies, Knowledge Check Quizzes, Skills Immersion Programs & Camps, Collaborative Mentoring Services and Extended Learning Support & Post Training services.**

Course Topics / Agenda

Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We'll work with you to tune this course and level of coverage to target the skills you need most. Topics, agenda and labs may adjust during live delivery based on audience skill-level, needs and participation.

Session: Data Science Essentials

- Data Science
- Process of Doing Data Science

Session: Introducing R

- R Essentials
- Variables and Types
- Control Structures (Loops / Conditionals)
- R Scalars, Vectors, and Matrices
 - Defining R Vectors
 - Matrices
- String and Text Manipulation
 - Character data type
 - File IO
- Lists
- Functions

- Introducing Functions
- Closures
- lapply/sapply functions
- DataFrames

Session: Intermediate R

- DataFrames and File I/O
- Reading data from files
- Data Preparation
- Built-in Datasets
- Visualization
 - Graphics Package
 - plot() / barplot() / hist() / boxplot() / scatter plot
 - Heat Map
 - ggplot2 package (qplot(), ggplot())

- Exploration With Dplyr

Session: Analytics With R

- Statistical Modeling With R
 - Statistical Functions
 - Dealing With NA
 - Distributions (Binomial, Poisson, Normal)
- Data Exploration
- Regressions
 - Linear Regressions
 - Logistic Regressions
- Text Processing (tm package / Wordclouds)
- R and Big Data

For More Information

All courses can be presented **onsite** or **online**, or in a **combined / flex / blended learning format**, tailored to target your specific audience, needs and learning goals. We also offer focused, flexible **short courses, self-paced learning options, recorded sessions** and more. We train beginner to advanced skills in all areas we cover, and offer **New Hire / Cohort Training, Boot Camps, Skills Immersion Programs, Reskilling Programs, Skills Migration & Transition Programs**, and more. We collaborate with you to ensure all courses are truly targeted to meet your specific needs and learning skills, maximizing your valuable training time, as well as your important budget. Please also visit our extensive **Public Training Schedule** for training for smaller groups or individuals. Please contact us for course details, **Corporate Rates** and **Special Discount Offers**.

For more information about our dedicated training services, collaborative coaching services, courseware licensing options, public course schedule, training management services, partner programs, or to see our complete list of course offerings and special offers please visit us at www.triveratech.com, email Info@triveratech.com or call us toll free at **844-475-4559**. Our pricing and services are always satisfaction guaranteed.