

Regression Methods Using SAS® Viya®

2 Days

DURATION

10

MODULES

21

TOPICS

VMOD01

COURSE CODE

COURSE OVERVIEW

This course introduces several regression methods used in modern analytics workflows in SAS Viya. Learners explore linear, quantile, logistic, Poisson, Tweedie, generalized additive, mixed, Cox survival, discrete-time hazard (self-study), nonlinear, and partial least squares regression. Each method is presented with its primary applications, strengths, and limitations, along with practical demonstrations in SAS Viya. Examples throughout the course highlight use cases in banking, financial services, direct marketing, insurance, telecommunications, and medical research.

WHO THIS COURSE IS FOR

- Business analysts, social scientists, epidemiologists, and statisticians who want to see what SAS Viya has to offer in regression methods

TOOLS AND REQUIREMENTS

- Have experience executing SAS programs and creating SAS data sets, which you can gain from the SAS® Programming 1: Essentials course.
- Have experience building statistical models using SAS software.
- Have completed a statistics course that covers linear regression and logistic regression, such as the Statistics You Need to Know for Machine Learning course and the Statistics 1: Introduction to ANOVA, Regression, and Logistic Regression course.
- SAS Viya

LEARNING OBJECTIVES

What You Will Learn

- Use SAS Viya to fit various regression models.
- Assess model performance in SAS Viya.
- Score new data with the fitted regression models in SAS Viya.

COURSE SYLLABUS

10 Modules, 21 Topics

01

Introduction to SAS Viya

TOPICS

- SAS Analytics Platform.
- Loading files into SAS Viya.

02

Linear Regression

TOPICS

- Fitting models in the REGSELECT procedure.
- Model assessment.

03

Quantile Regression

TOPICS

- What is quantile regression?

04

Logistic Regression

TOPICS

- Logistic regression models.
- Model assessment for logistic regression.

05

Generalized Linear Models

TOPICS

- Generalized linear models.
- Poisson regression.
- Tweedie regression.

06

Generalized Additive Models

TOPICS

- Introduction to generalized additive models.
- Using the GAMSELECT procedure to fit generalized additive models.

07

Survival Analysis

TOPICS

- Introduction to survival analysis.
- Cox Proportional Hazards model.
- Discrete time survival models (self-study).

08

Mixed Models

TOPICS

- Introduction to mixed modeling.
- Fitting a mixed model in the LMIXED procedure.

09

Nonlinear Regression

TOPICS

- Introduction to nonlinear regression models.
- Fitting nonlinear regression models using the NLMOD procedure.

10

Partial Least Squares

TOPICS

- Introduction to partial least squares.
- Fitting partial least squares models in the PLSMOD procedure.

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Hands-on exercises throughout the course
- Delivery by certified instructors and subject matter experts
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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