Contents

Preface to the Third Edition v
Preface to the Second Edition vii
Preface to the First Edition ix

Part 1 Foundations of Multiple Regression Analysis

Chapter 1 Overview 1
Chapter 2 Simple Linear Regression and Correlation 15
Chapter 3 Regression Diagnostics 43
Chapter 4 Computers and Computer Programs 62
Chapter 5 Elements of Multiple Regression Analysis: Two Independent Variables 95
Chapter 6 General Method of Multiple Regression Analysis: Matrix Operations 135
Chapter 7 Statistical Control: Partial and Semipartial Correlation 156
Chapter 8 Prediction 195

Part 2 Multiple Regression Analysis: Explanation

Chapter 9 Variance Partitioning 241
Chapter 10 Analysis of Effects 283
Chapter 11 A Categorical Independent Variable: Dummy, Effect, and Orthogonal Coding 340
Chapter 12 Multiple Categorical Independent Variables and Factorial Designs 410
Chapter 13 Curvilinear Regression Analysis 513
Chapter 14 Continuous and Categorical Independent Variables—I: Attribute-Treatment Interaction; Comparing Regression Equations 560
Chapter 15 Continuous and Categorical Independent Variables—II: Analysis of Covariance 628
Chapter 16 Elements of Multilevel Analysis 675
Chapter 17 Categorical Dependent Variable: Logistic Regression 714

Part 3 Structural Equation Models

Chapter 18 Structural Equation Models with Observed Variables: Path Analysis 765

Chapter 19 Structural Equation Models with Latent Variables 841

Part 4 Multivariate Analysis

Chapter 20 Regression and Discriminant Analysis 894

Chapter 21 Canonical and Discriminant Analysis, and Multivariate Analysis of Variance 924

Appendix A Matrix Algebra: An Introduction 983

Appendix B Tables 995

References 1002

Index of Names 1035

Index of Subjects 1047