Contents



PREFACE ix

Chapter 1 Science and Philosophy 1

Scientific Disputes and Philosophical Questions 1 Modern Science: A Brief History 3 Images of Science 8 Suggestions for Further Reading 10

Chapter 2 The Analytic Project 12

Demarcating Science 12
Confirmation 24
Theories 34
Explanation 38
Failures—and Successes 46
Suggestions for Further Reading 47

Chapter 3 The View from the Sciences 50

The Sciences on Their Own Terms 50
The Ideal of Unified Science 51
The Ineradicability of Causation 61
Against the Supernatural 66
Making Sense of Ourselves 70
Naturalizing Knowledge 74
Suggestions for Further Reading 76

vii

Chapter 4 Science, History, and Society 78

More than Anecdote 78
Frameworks and Revolutions 79
The Bogey of Relativism 89
Success, Truth, and Progress 94
Progress Without Truth? 101
Suggestions for Further Reading 103

Chapter 5 Critical Voices 106

A Mixture of Challenges 106
Diversity and the Feminist Critique 107
The Cultural Critique 113
The Ecological Critique 117
Antiscience 122
Science as a Social Endeavor 125
Knowledge and Power 132
Suggestions for Further Reading 134

Chapter 6 Science, Values, and Politics 136

The Aims of the Sciences 136
Values and Choices 139
The Autonomy of the Sciences 141
Powers Behind the Lab 142
What Do "We" Want to Know? 150
Deciding What We Know 156
Conclusion 162
Suggestions for Further Reading 162

INDEX 165