

An Introduction to the Philosophy of Science

KENT W. STALEY

Saint Louis University, Missouri



Contents

<i>List of figures</i>	page ix
<i>List of tables</i>	x
<i>Preface: philosophy of science for philosophers, scientists, and everyone else</i>	xi
<i>Acknowledgments</i>	xvi
<i>List of abbreviations</i>	xvii
Part I Background and Basic Concepts	1
1 Some problems of induction	3
2 Falsificationism: science without induction?	15
3 Underdetermination	26
4 Logical empiricism and scientific theories	39
5 Kuhn: scientific revolutions as paradigm changes	55
6 Lakatos: scientific research programs	71
7 Feyerabend: epistemological anarchism	85
Part II Ongoing Investigations	103
8 Reasoning with probability: Bayesianism	105
9 Reasoning with probability: frequentism	135
10 Realism and anti-realism	167

11 Explanation	199
12 Values in science	229
<i>References</i>	258
<i>Index</i>	276