

Philosophy Of Science The Central Issues

Philosophy of science studies the methods, theories, and concepts used by scientists. It mainly developed as a field in its own right during the twentieth century and is now a diversified and lively research area. This book surveys the current state of the discipline by focusing on central themes like confirmation of scientific hypotheses, scientific explanation, causality, the relationship between science and metaphysics, scientific change, the relationship between philosophy of science and science studies, the role of theories and models, unity of science. These themes define general philosophy of science. The book also presents sub-disciplines in the philosophy of science dealing with the main sciences: logic, mathematics, physics, biology, medicine, cognitive science, linguistics, social sciences, and economics. While it is common to address the specific philosophical problems raised by physics and biology in such a book, the place assigned to the philosophy of special sciences is much more unusual. Most authors collaborate on a regular basis in their research or teaching and share a common vision of philosophy of science and its place within philosophy and academia in general. The chapters have been written in close accordance with the three editors, thus achieving strong unity of style and tone.

This Very Short Introduction provides a concise overview of the main themes of contemporary philosophy of science. After a short history, the author goes on to investigate the nature of scientific reasoning, scientific explanation and more.

This book explores central philosophical concepts, issues, and debates in the philosophy of science, both historical and contemporary.

Read Free Philosophy Of Science The Central Issues

The Routledge Companion to Philosophy of Science is an indispensable reference source and guide to the major themes, debates, problems and topics in philosophy of science. It contains sixty-two specially commissioned entries by a leading team of international contributors. Organized into four parts it covers: historical and philosophical context debates concepts the individual sciences. The Routledge Companion to Philosophy of Science addresses all of the essential topics.

The book is a translation of the second edition of a much-used and research-based Chinese textbook. As a succinct and issue-based introduction to the Western philosophy of science, the book brings eight focal issues in the field to the fore and augments each topic by incorporating Chinese perspectives. Followed by an overview of the historical framework and logical underpinnings of the philosophy of science, the book thoroughly discusses eight issues in the discipline: (1) the criteria of cognitive meaning, (2) induction and confirmation, (3) scientific explanation, (4) theories of scientific growth, (5) the demarcation between science and pseudoscience, (6) scientific realism and empiricism; (7) the philosophy of scientific experimentation, (8) science and value. Not confined to Western mainstream discourse in this field, the book also introduces voices of Chinese philosophers of note and adopts a stance that productively combines logical empiricism and Kuhnianism, both of which tend to be covered in less detail by many English language textbooks. In the final chapter the author offers a prognosis regarding the future of the discipline based on recent trends. This book will be of value to students who study philosophy of science and hope to gain a better understanding of science and technology.

In Systematicity, Paul Hoyningen-Huene answers the question "What is science?" by proposing that scientific

Read Free Philosophy Of Science The Central Issues

knowledge is primarily distinguished from other forms of knowledge, especially everyday knowledge, by being more systematic. "Science" is here understood in the broadest possible sense, encompassing not only the natural sciences but also mathematics, the social sciences, and the humanities. The author develops his thesis in nine dimensions in which it is claimed that science is more systematic than other forms of knowledge: regarding descriptions, explanations, predictions, the defense of knowledge claims, critical discourse, epistemic connectedness, an ideal of completeness, knowledge generation, and the representation of knowledge. He compares his view with positions on the question held by philosophers from Aristotle to Nicholas Rescher. The book concludes with an exploration of some consequences of Hoyningen-Huene's view concerning the genesis and dynamics of science, the relationship of science and common sense, normative implications of the thesis, and the demarcation criterion between science and pseudo-science.

The domain of nonlinear dynamical systems and its mathematical underpinnings has been developing exponentially for a century, the last 35 years seeing an outpouring of new ideas and applications and a concomitant confluence with ideas of complex systems and their applications from irreversible thermodynamics. A few examples are in meteorology, ecological dynamics, and social and economic dynamics. These new ideas have profound implications for our understanding and practice in domains involving complexity, predictability and determinism, equilibrium, control, planning, individuality, responsibility and so on. Our intention is to draw together in this volume, we believe for the first time, a comprehensive picture of the manifold philosophically interesting impacts of recent developments in understanding nonlinear systems and the

Read Free Philosophy Of Science The Central Issues

unique aspects of their complexity. The book will focus specifically on the philosophical concepts, principles, judgments and problems distinctly raised by work in the domain of complex nonlinear dynamical systems, especially in recent years.

- Comprehensive coverage of all main theories in the philosophy of Complex Systems
- Clearly written expositions of fundamental ideas and concepts
- Definitive discussions by leading researchers in the field
- Summaries of leading-edge research in related fields are also included

In this monograph Janet A. Kourany argues for a philosophy of science more socially engaged and socially responsible than the philosophy of science we have now. The central questions feminist scientists, philosophers, and historians have been raising about science during the last three decades form Kourany's point of departure and her response to these questions builds on their insights. This way of approaching science differs from mainstream philosophy of science in two crucial respects: it locates science within its wider societal context rather than treating science as if it existed in a social, political, and economic vacuum; and it points the way to a more comprehensive understanding of scientific rationality, one that integrates the ethical with the epistemic. Kourany develops her particular response, dubbed by her the ideal of socially responsible science, beyond the gender-related questions and contexts that form its origins and she defends it against a variety of challenges, epistemological, historical, sociological, economic, and political. She ends by displaying the important new directions philosophy of science can take and the impressive new roles philosophers of science can fill with the approach to science she offers.

Philosophy of science puts science itself under the

Read Free Philosophy Of Science The Central Issues

microscope: What exactly is science? How do its explanations of the world differ from those of other subjects, including so-called “pseudo-sciences”? How should we understand and evaluate scientific methods? What, if anything, can science tell us about the nature of physical reality? Dean Rickles guides beginners through the central topics in philosophy of science. He looks at the origins and evolution of the field, the issues that arise when distinguishing between science and non-science, the concepts of logic and associated problems, scientific realism and anti-realism, and the nature of scientific models and representing. Rickles brings the subject to sparkling life with a user-friendly tone and rich, real-world examples. What is Philosophy of Science? is the must-have primer for students getting to grips with this broad-ranging and important topic.

This volume follows the successful book, which has helped to introduce and spread the Philosophy of Chemistry to a wider audience of philosophers, historians, science educators as well as chemists, physicists and biologists. The introduction summarizes the way in which the field has developed in the ten years since the previous volume was conceived and introduces several new authors who did not contribute to the first edition. The editors are well placed to assemble this book, as they are the editor in chief and deputy editors of

Read Free Philosophy Of Science The Central Issues

the leading academic journal in the field, Foundations of Chemistry. The philosophy of chemistry remains a somewhat neglected field, unlike the philosophy of physics and the philosophy of biology. Why there has been little philosophical attention to the central discipline of chemistry among the three natural sciences is a theme that is explored by several of the contributors. This volume will do a great deal to redress this imbalance. Among the themes covered is the question of reduction of chemistry to physics, the reduction of biology to chemistry, whether true chemical laws exist and causality in chemistry. In addition more general questions of the nature of organic chemistry, biochemistry and chemical synthesis are examined by specialist in these areas.

Described by the philosopher A.J. Ayer as a work of 'great originality and power', this book revolutionized contemporary thinking on science and knowledge. Ideas such as the now legendary doctrine of 'falsificationism' electrified the scientific community, influencing even working scientists, as well as post-war philosophy. This astonishing work ranks alongside *The Open Society and Its Enemies* as one of Popper's most enduring books and contains insights and arguments that demand to be read to this day.

Scientists use concepts and principles that are partly specific for their subject matter, but they also share

Read Free Philosophy Of Science The Central Issues

part of them with colleagues working in different fields. Compare the biological notion of a 'natural kind' with the general notion of 'confirmation' of a hypothesis by certain evidence. Or compare the physical principle of the 'conservation of energy' and the general principle of 'the unity of science'.

Scientists agree that all such notions and principles aren't as crystal clear as one might wish. An important task of the philosophy of the special sciences, such as philosophy of physics, of biology and of economics, to mention only a few of the many flourishing examples, is the clarification of such subject specific concepts and principles. Similarly, an important task of 'general' philosophy of science is the clarification of concepts like 'confirmation' and principles like 'the unity of science'. It is evident that clarification of concepts and principles only makes sense if one tries to do justice, as much as possible, to the actual use of these notions by scientists, without however following this use slavishly. That is, occasionally a philosopher may have good reasons for suggesting to scientists that they should deviate from a standard use. Frequently, this amounts to a plea for differentiation in order to stop debates at cross-purposes due to the conflation of different meanings. While the special volumes of the series of Handbooks of the Philosophy of Science address topics relative to a specific discipline, this general volume deals with focal issues of a general nature.

Read Free Philosophy Of Science The Central Issues

After an editorial introduction about the dominant method of clarifying concepts and principles in philosophy of science, called explication, the first five chapters deal with the following subjects. Laws, theories, and research programs as units of empirical knowledge (Theo Kuipers), various past and contemporary perspectives on explanation (Stathis Psillos), the evaluation of theories in terms of their virtues (Ilkka Niiniluoto), and the role of experiments in the natural sciences, notably physics and biology (Allan Franklin), and their role in the social sciences, notably economics (Wenceslao Gonzalez). In the subsequent three chapters there is even more attention to various positions and methods that philosophers of science and scientists may favor: ontological, epistemological, and methodological positions (James Ladyman), reduction, integration, and the unity of science as aims in the sciences and the humanities (William Bechtel and Andrew Hamilton), and logical, historical and computational approaches to the philosophy of science (Atocha Aliseda and Donald Gillies). The volume concludes with the much debated question of demarcating science from nonscience (Martin Mahner) and the rich European-American history of the philosophy of science in the 20th century (Friedrich Stadler). Comprehensive coverage of the philosophy of science written by leading philosophers in this field Clear style of writing for an

Read Free Philosophy Of Science The Central Issues

interdisciplinary audience No specific pre-knowledge required

This volume provides the fundamentals needed to understand the various explanatory systems and methodologies used in the behavior sciences and to evaluate their findings, in particular the literature and findings on buyer behavior. In clear prose, the author discusses the key issues in modern philosophy, psychology, and sociology and their relevance for the student of marketing and buyer behavior.

O'Shaughnessy exploits insights from many disciplines as to the many ways to derive understanding of behavioral phenomena, making it accessible not only to academics and students of marketing, but to professionals as well.

Any serious student attempting to better understand the nature, methods and justification of science will value Alex Rosenberg's updated and substantially revised Third Edition of *Philosophy of Science: A Contemporary Introduction*. Weaving together lucid explanations and clear analyses, the volume is a much-used, thematically oriented introduction to the field. New features of the Third Edition include more coverage of the history of the philosophy of science, more fully developed material on the metaphysics of causal and physical necessity, more background on the contrast between empiricism and rationalism in science, and new material on the structure of theoretical science (with expanded coverage of

Read Free Philosophy Of Science The Central Issues

Newtonian and Darwinian theories and models) and the realism/antirealism controversy. Rosenberg also divides the Third Edition into fifteen chapters, aligning each chapter with a week in a standard semester-long course. Updated Discussion Questions, Glossary, Bibliography and Suggested Readings lists at the end of each chapter will make the Third Edition indispensable, either as a comprehensive stand-alone text or alongside the many wide-ranging collections of articles and book excerpts currently available. Read our interview with Alex Rosenberg, What exactly is philosophy of science – and why does it matter? here:

www.routledge.com/u/alexrosenberg

The essays in this collection have been written for Gerd Buchdahl, by colleagues, students and friends, and are self-standing pieces of original research which have as their main concern the metaphysics and philosophy of science of the seventeenth and eighteenth centuries. They focus on issues about the development of philosophical and scientific thought which are raised by or in the work of such as Bernoulli, Descartes, Galileo, Kant, Leibniz, Maclaurin, Priestly, Schelling, Vico. Apart from the initial bio-bibliographical piece and those by Robert Butts and Michael Power, they do not discuss Buchdahl or his ideas in any systematic, lengthy, or detailed way. But they are collected under a title which alludes to the book, *Metaphysics and the*

Read Free Philosophy Of Science The Central Issues

Philosophy of Science: The Classical Origins, Descartes to Kant (1969), which is central in the corpus of his work, and deal with the period and some of the topics with which that book deals. How much faith should we place in what scientists tell us? Is it possible for scientific knowledge to be fully "objective?" What, really, can be defined as science? In the second edition of this Very Short Introduction, Samir Okasha explores the main themes and theories of contemporary philosophy of science, and investigates fascinating, challenging questions such as these. Starting at the very beginning, with a concise overview of the history of science, Okasha examines the nature of fundamental practices such as reasoning, causation, and explanation. Looking at scientific revolutions and the issue of scientific change, he asks whether there is a discernible pattern to the way scientific ideas change over time, and discusses realist versus anti-realist attitudes towards science. He finishes by considering science today, and the social and ethical philosophical questions surrounding modern science. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and

Read Free Philosophy Of Science The Central Issues

challenging topics highly readable.

Both an anthology and an introductory textbook, *Philosophy of Science: The Central Issues* offers instructors and students a comprehensive anthology of fifty-two primary texts by leading philosophers in the field and provides extensive editorial commentary that places the readings in a wide philosophical context.

Current Controversies in Philosophy of Science asks twelve philosophers to debate six questions that are driving contemporary work in this area of philosophy. The questions are: I. Are Boltzmann Brains Bad? II. Does Mathematical Explanation Require Mathematical Truth? III. Does Quantum Mechanics Suggest Spacetime is Nonfundamental? IV. Is Evolution Fundamental When It Comes to Defining Biological Ontology? V. Is Chance Ontologically Fundamental? VI. Are Sexes Natural Kinds? These debates explore the philosophical foundations of particular scientific disciplines, while also examining more general issues in the philosophy of science. The result is a book that's perfect for the advanced philosophy student, building up their knowledge of the foundations of the field and engaging with its cutting-edge questions. Preliminary descriptions of each chapter, annotated lists of further readings for each controversy, and study questions for each chapter help provide clearer and richer snapshots of active controversies for all readers.

Major figures of twentieth-century philosophy were enthralled by the revolution in formal logic, and many of their arguments are based on novel mathematical discoveries. Hilary Putnam claimed that the Lwenheim-Sklem theorem refutes the existence of an objective, observer-independent world; Bas van Fraassen claimed that arguments against empiricism in philosophy of science are ineffective against a semantic approach to scientific theories; W. V. O. Quine claimed that

Read Free Philosophy Of Science The Central Issues

the distinction between analytic and synthetic truths is trivialized by the fact that any theory can be reduced to one in which all truths are analytic. This book dissects these and other arguments through in-depth investigation of the mathematical facts undergirding them. It presents a systematic, mathematically rigorous account of the key notions arising from such debates, including theory, equivalence, translation, reduction, and model. The result is a far-reaching reconceptualization of the role of formal methods in answering philosophical questions.

A flexible and comprehensive introduction to the main currents in philosophy of science.

Few can imagine a world without telephones or televisions; many depend on computers and the Internet as part of daily life. Without scientific theory, these developments would not have been possible. In this exceptionally clear and engaging introduction to philosophy of science, James Ladyman explores the philosophical questions that arise when we reflect on the nature of the scientific method and the knowledge it produces. He discusses whether fundamental philosophical questions about knowledge and reality might be answered by science, and considers in detail the debate between realists and antirealists about the extent of scientific knowledge. Along the way, central topics in philosophy of science, such as the demarcation of science from non-science, induction, confirmation and falsification, the relationship between theory and observation and relativism are all addressed. Important and complex current debates over underdetermination, inference to the best explanation and the implications of radical theory change are clarified and clearly explained for those new to the subject.

Psychology is the study of thinking, and cognitive science is the interdisciplinary investigation of mind and intelligence that also includes philosophy, artificial intelligence, neuroscience,

Read Free Philosophy Of Science The Central Issues

linguistics, and anthropology. In these investigations, many philosophical issues arise concerning methods and central concepts. The Handbook of Philosophy of Psychology and Cognitive Science contains 16 essays by leading philosophers of science that illuminate the nature of the theories and explanations used in the investigation of minds. Topics discussed include representation, mechanisms, reduction, perception, consciousness, language, emotions, neuroscience, and evolutionary psychology. Comprehensive coverage of philosophy of psychology and cognitive science Distinguished contributors: leading philosophers in this area Contributions closely tied to relevant scientific research Philosophy of Chemistry investigates the foundational concepts and methods of chemistry, the science of the nature of substances and their transformations. This groundbreaking collection, the most thorough treatment of the philosophy of chemistry ever published, brings together philosophers, scientists and historians to map out the central topics in the field. The 33 articles address the history of the philosophy of chemistry and the philosophical importance of some central figures in the history of chemistry; the nature of chemical substances; central chemical concepts and methods, including the chemical bond, the periodic table and reaction mechanisms; and chemistry's relationship to other disciplines such as physics, molecular biology, pharmacy and chemical engineering. This volume serves as a detailed introduction for those new to the field as well as a rich source of new insights and potential research agendas for those already engaged with the philosophy of chemistry. Provides a bridge between philosophy and current scientific findings Encourages multi-disciplinary dialogue Covers theory and applications Part of the Handbook of the Philosophy of Science Series edited by: Dov M. Gabbay King's College, London, UK; Paul Thagard University of Waterloo, Canada; and John Woods

Read Free Philosophy Of Science The Central Issues

University of British Columbia, Canada. Philosophy of Economics investigates the foundational concepts and methods of economics, the social science that analyzes the production, distribution and consumption of goods and services. This groundbreaking collection, the most thorough treatment of the philosophy of economics ever published, brings together philosophers, scientists and historians to map out the central topics in the field. The articles are divided into two groups. Chapters in the first group deal with various philosophical issues characteristic of economics in general, including realism and Lakatos, explanation and testing, modeling and mathematics, political ideology and feminist epistemology. Chapters in the second group discuss particular methods, theories and branches of economics, including forecasting and measurement, econometrics and experimentation, rational choice and agency issues, game theory and social choice, behavioral economics and public choice, geographical economics and evolutionary economics, and finally the economics of scientific knowledge. This volume serves as a detailed introduction for those new to the field as well as a rich source of new insights and potential research agendas for those already engaged with the philosophy of economics. Provides a bridge between philosophy and current scientific findings Encourages multi-disciplinary dialogue Covers theory and applications

What is the origin of our universe? What are dark matter and dark energy? What is our role in the universe as human beings capable of knowledge? What makes us intelligent cognitive agents seemingly endowed with consciousness? Scientific research across both the physical and cognitive sciences raises fascinating philosophical questions. Philosophy and the Sciences For Everyone introduces these questions and more. It

Read Free Philosophy Of Science The Central Issues

begins by asking what good is philosophy for the sciences before examining the following questions: The origin of our universe Dark matter and dark energy Anthropic reasoning in philosophy and cosmology Evolutionary theory and the human mind What is consciousness? Intelligent machines and the human brain Embodied Cognition. Each chapter includes an introduction, summary and study questions and there is a glossary of technical terms. Designed to be used on the corresponding Philosophy and the Sciences online course offered by the University of Edinburgh this book is also a superb introduction to central topics in philosophy of science and popular science.

Contemporary Debates in Philosophy of Science contains sixteen original essays by leading authors in the philosophy of science, each one defending the affirmative or negative answer to one of eight specific questions, including: Are there laws of social science? Are causes physically connected to their effects? Is the mind a system of modules shaped by natural selection? Brings together fresh debates on eight of the most controversial issues in the philosophy of science.

Questions addressed include: "Are there laws of social science?"; "Are causes physically connected to their effects?"; "Is the mind a system of modules shaped by natural selection?" Each question is treated by a pair of opposing essays written by eminent scholars, and especially commissioned for the volume. Lively debate format sharply defines the issues, and paves the way for further discussion. Will serve as an accessible introduction to the major topics in contemporary

Read Free Philosophy Of Science The Central Issues

philosophy of science, whilst also capturing the imagination of professional philosophers.

Philosophy of Science: An Anthology assembles some of the finest papers in the philosophy of science since 1945, showcasing enduring classics alongside important and innovative recent work. Introductions by the editor highlight connections between selections, and contextualize the articles. Nine sections address topics at the heart of philosophy of science, including realism and the character of scientific theories, scientific explanations and laws of nature, singular causation, and the metaphysical implications of modern physics. Provides an authoritative and accessible overview of the field. A short and accessible introduction to philosophy of science for students and researchers across the life sciences.

All the great philosophers from Plato and Aristotle to the present day have been philosophers of science. However, this book concentrates on modern philosophy of science, starting in the nineteenth century and offering coverage of all the leading thinkers in the field including Whewell, Mill, Reichenbach, Carnap, Popper, Feyerabend, Putnam, van Fraassen, Bloor, Latour, Hacking, Cartwright and many more. Crucially the book demonstrates how the ideas and arguments of these key thinkers have contributed to our understanding of such central issues as experience and necessity, conventionalism, logical empiricism, induction and falsification, the sociology of science, and realism. Ideal for undergraduate students, the book lays the necessary foundations for a complete and thorough understanding

Read Free Philosophy Of Science The Central Issues

of this fascinating subject.

This handbook provides both an overview of state-of-the-art scholarship in philosophy of science, as well as a guide to new directions in the discipline. Section I contains broad overviews of the main lines of research and the state of established knowledge in six principal areas of the discipline, including computational, physical, biological, psychological and social sciences, as well as general philosophy of science. Section II covers what are considered to be the traditional topics in the philosophy of science, such as causation, probability, models, ethics and values, and explanation. Section III identifies new areas of investigation that show promise of becoming important areas of research, including the philosophy of astronomy and astrophysics, data, complexity theory, neuroscience, simulations, post-Kuhnian philosophy, post-empiricist epistemology, and emergence. Most chapters are accessible to scientifically educated non-philosophers as well as to professional philosophers, and the contributors - all leading researchers in their field -- bring diverse perspectives from the North American, European, and Australasian research communities. This volume is an essential resource for scholars and students.

This book traces the development during the 20th century of four central themes in the philosophy of science. The themes, chosen for their importance are expounded in a way which does not presuppose any previous knowledge of philosophy or science. The book thus constitutes an excellent introduction to the philosophy of science.

Read Free Philosophy Of Science The Central Issues

Science has made a huge impact on human society over hundred years, but how does it work? How do scientists do the things they do? How do they come up with the theories? How do they test them? How do they use these theories to explain phenomena? How do they draw conclusions from them about how the world might be? Now updated, this second edition of *Philosophy of Science: Key Concepts* looks at each of these questions and more. Taking in turn the fundamental theories, processes and views lying at the heart of the philosophy of science, this engaging introduction illuminates the scientific practice and provides a better appreciation of how science actually works. It features: - Chapters on discovery, evidence, verification and falsification, realism and objectivity - Accessible overviews of work of key thinkers such as Galileo, Einstein and Mullis - A new chapter on explanation - An extended range of easy-to-follow and contemporary examples to help explain more technical ideas - Study exercises, an annotated bibliography and suggestions of Where to Go Next Succinct and approachable, *Philosophy of Science: Key Concepts* outlines some of the most central and important scientific questions, problems and arguments without assuming prior knowledge of philosophy. This enjoyable introduction is the perfect starting point for anyone looking to understand how and why science has shaped and changed our view of the world.

Nancy Cartwright is one of the most distinguished and influential contemporary philosophers of science. Despite the profound impact of her work, there is neither a systematic exposition of

Read Free Philosophy Of Science The Central Issues

Cartwright's philosophy of science nor a collection of articles that contains in-depth discussions of the major themes of her philosophy. This book is devoted to a critical assessment of Cartwright's philosophy of science and contains contributions from Cartwright's champions and critics. Broken into three parts, the book begins by addressing Cartwright's views on the practice of model building in science and the question of how models represent the world before moving on to a detailed discussion of methodologically and metaphysically challenging problems. Finally, the book addresses Cartwright's original attempts to clarify profound questions concerning the metaphysics of science. With contributions from leading scholars, such as Ronald N. Giere and Paul Teller, this unique volume will be extremely useful to philosophers of science the world over.

Containing 31 readings reflecting the dynamism of the field, this book provides readers with the most current and relevant readings available on issues in the philosophy of science. All of the readings have been selected based on their clarity and coverage of the prevailing debates in the philosophy of science--from logical positivism to anti-realism. The book assumes no specialized training in formal logic or scientific methods and therefore can be appreciated by a wide range of readers.

How does science work? Does it tell us what the

Read Free Philosophy Of Science The Central Issues

world is “really” like? What makes it different from other ways of understanding the universe? In *Theory and Reality*, Peter Godfrey-Smith addresses these questions by taking the reader on a grand tour of more than a hundred years of debate about science. The result is a completely accessible introduction to the main themes of the philosophy of science.

Examples and asides engage the beginning student, a glossary of terms explains key concepts, and suggestions for further reading are included at the end of each chapter. Like no other text in this field, *Theory and Reality* combines a survey of recent history of the philosophy of science with current key debates that any beginning scholar or critical reader can follow. The second edition is thoroughly updated and expanded by the author with a new chapter on truth, simplicity, and models in science.

This is a concise, comprehensive, and accessible introduction to the philosophy of biology written by a leading authority on the subject. Geared to philosophers, biologists, and students of both, the book provides sophisticated and innovative coverage of the central topics and many of the latest developments in the field. Emphasizing connections between biological theories and other areas of philosophy, and carefully explaining both philosophical and biological terms, Peter Godfrey-Smith discusses the relation between philosophy and science; examines the role of laws, mechanistic

Read Free Philosophy Of Science The Central Issues

explanation, and idealized models in biological theories; describes evolution by natural selection; and assesses attempts to extend Darwin's mechanism to explain changes in ideas, culture, and other phenomena. Further topics include functions and teleology, individuality and organisms, species, the tree of life, and human nature. The book closes with detailed, cutting-edge treatments of the evolution of cooperation, of information in biology, and of the role of communication in living systems at all scales. Authoritative and up-to-date, this is an essential guide for anyone interested in the important philosophical issues raised by the biological sciences.

The Philosophy of Social Science: A Contemporary Introduction examines the perennial questions of philosophy by engaging with the empirical study of society. The book offers a comprehensive overview of debates in the field, with special attention to questions arising from new research programs in the social sciences. The text uses detailed examples of social scientific research to motivate and illustrate the philosophical discussion. Topics include the relationship of social policy to social science, interpretive research, action explanation, game theory, social scientific accounts of norms, joint intentionality, reductionism, causal modeling, case study research, and experimentation.

This book guides readers by gradual steps through

Read Free Philosophy Of Science The Central Issues

the central concepts and debates in the philosophy of science. Using concrete examples from the history of science, Kent W. Staley shows how seemingly abstract philosophical issues are relevant to important aspects of scientific practice. Structured in two parts, the book first tackles the central concepts of the philosophy of science, such as the problem of induction, falsificationism, and underdetermination, and important figures and movements, such as the logical empiricists, Thomas Kuhn, and Paul Feyerabend. The second part turns to contemporary debates in the philosophy of science, such as scientific realism, explanation, the role of values in science, the different views of scientific inference, and probability. This broad yet detailed overview will give readers a strong grounding whilst also providing opportunities for further exploration. It will be of particular interest to students of philosophy, the philosophy of science, and science.

[Copyright: 08de09d5240dad80d4cd48c58200e149](https://www.amazon.com/dp/08de09d5240dad80d4cd48c58200e149)