Philosophy Of Science The Central Issues Second Edition

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 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.

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

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 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.

An Introduction to the Philosophy of Science, Second Edition

Philosophy of Science

A Contemporary Introduction

The Central Issues

Leibniz

A short and accessible introduction to philosophy of science for students and researchers across the life sciences.

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 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 Well-being, happiness and quality of life are now established objects of social and medical research. Does this science produce knowledge that is properly

about well-being? What sort of well-being? The definition and measurement of these objects rest on assumptions that are partly normative, partly empirical and partly pragmatic, producing a great diversity of definitions depending on the project and the discipline. This book, written from the perspective of philosophy of science, formulates principles for the responsible production and interpretation of this diverse knowledge. Traditionally, philosophers' goal has been a single concept of well-being and a single theory about what it consists in. But for science this goal is both unlikely and unnecessary. Instead the promise and authority of the science depends on it focusing on the well-being of specific kinds of people in specific contexts. Skeptical

arguments notwithstanding, this contextual well-being can be measured in a valid and credible way - but only if scientists broaden their methods to make room for normative considerations and address publicly and inclusively the value-based conflicts that inevitably arise when a measure of well-being is adopted. The science of well-being can be normative, empirical and objective all at once, provided that we line up values to science and science to values.

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.

The History of an Institution and Its Global Competitors

Nancy Cartwright's Philosophy of Science

The Philosophy of Cognitive Science

Nature and Freedom

An Anthology

A great text for students wishing to examine the questions raised in the philosophy of science. An ideal first guide to this challenging subject.

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 anit-realism. The book assumes no specialized training in formal logic or scientific methods and therefore can be appreciated by a wide range of readers.

This book both introduces the philosophy of science through examination of the occult and examines the occult rigorously enough to raise central issues in the philosophy of science. Placed in the context of the occult, philosophy of science issues become immediately understandable and forcefully

compelling. Divergent views on astrology, parapsychology, and quantum mechanics mysticism emphasize topics standard to the philosophy of science. Such issues as confirmation and selection for testing, causality and time, explanation and the nature of scientific laws, the status of theoretical entities, the problem of demarcation, theory and observation, and science and values are discussed. Significantly revised, this second edition presents an entirely new section of quantum mechanics and mysticism including instructions from N. David Mermin for constructing a device which dramatically illustrates the genuinely puzzling phenomena of quantum mechanics. A more complete and current review of research on astrology has been included in this new edition, and the section on the problem of

demarcation has been broadened. Patrick Grim is Associate Professor of Philosophy at the State University of New York at Stony Brook. He has coedited eleven volumes of The Philosopherâ€™s Annual and has published a number of articles on logic and contemporary metaphysics, philosophy of religion, and ethics.

This book is an introduction to the history of the concept and the institution of (fine) art, from its ancient Southern European roots to the establishment of the modern system of the arts in eighteenth century Central Europe. It highlights the way the concept and institution of (fine) art, through colonialism and diaspora, conquered the world. Ryynänen presents globally competing frameworks from India to Japan but also describes how the art system debased local European artistic cultures

(by women, members of the working class, etc) and how art with the capital A appropriated not just non-Western but also Western alternatives to art (popular culture). The book discusses alternative art forms such as sport, kitsch, and rap music as pockets of resistance and resources for future concepts of art. Ultimately, the book introduces nobrow as an alternative to high and low, a new concept that sheds light on the democratic potentials of the field of art and invites reader to rethink the nature of art.

Second Edition

Philosophy of Social Science

An Introduction to the Central Issues

Philosophy of Science and the Occult

Philosophy of Science: The Key Thinkers

Philosophy of ScienceThe Central IssuesW. W. Norton

Philosophy of science puts science itself under the 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 book explores central philosophical concepts, issues, and debates in the philosophy of science, both historical and contemporary.

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.

Conjectures and Refutations

Science: Key Concepts in Philosophy

Four Central Themes

Basic Issues in the Philosophy of Science

The Routledge Companion to Philosophy of Science

This volume covers a wide range of conceptual, epistemological and methodological issues in the philosophy of science raised by reflection upon medical science and practice. Several chapters examine such general meta-scientific concepts as discovery, reduction, theories and models, causal inference and scientific realism as they apply to medicine or medical science in particular. Some discuss important concepts specific to medicine (diagnosis, health, disease, brain death). A topic such as evidence, for instance, is examined at a variety of levels, from social mechanisms for guiding evidence-based reasoning such as evidence-based medicine, consensus conferences, and clinical trials, to the

more abstract analysis of experimentation, inference and uncertainty. Some chapters reflect on particular domains of medicine, including psychiatry, public health, and nursing. The contributions span a broad range of detailed cases from the science and practice of medicine, as well as a broad range of intellectual approaches, from conceptual analysis to detailed examinations of particular scientific papers or historical episodes. Chapters view philosophy of medicine from quite different angles Considers substantive cases from both medical science and practice Chapters from a distinguished array of contributors

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.

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 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

Central Issues in the Philosophy of Science, 2e

A Companion

Philosophy of Science in the Twentieth Century

The Meaning of Science

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.

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 challenging topics highly readable.

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 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.

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 of this fascinating subject.

Philosophy of Chemistry

Contemporary Debates in Philosophy of Science

Philosophy of Economics
Philosophy of Complex Systems
On the Philosophy of Central European Art

A philosopher of science examines the biggest ethical and moral issues in science today, and explains why they matter for all of us -- scientist and layman alike Science has produced explanations for everything from the mechanisms of insect navigation to the formation of black holes and the workings of black markets. But how much can we trust science, and can we actually know the world through it? How does science work and how does it fail? And how can the work

of scientists help -- or hurt -- everyday people? These are not questions that science can answer on its own. This is where philosophy of science comes in. Studying science without philosophy is, to quote Einstein, to be "like somebody who has seen thousands of trees but has never seen a forest." Cambridge philosopher Tim Lewens shows us the forest. He walks us through the theories of seminal philosophers of science Karl Popper and Thomas Kuhn and considers what science is, how far it can and should reach, and how we can determine the nature of its truths and myths. These philosophical issues have

consequences that stretch far beyond the laboratory. For instance: What role should scientists have in policy discussions on environmental issues such as fracking? What are the biases at play in the search for a biological function of the female orgasm? If brain scans can be used to demonstrate that a decision was made several seconds before a person actually makes a conscious choice, what does that tell us about the possibility of free will? By examining science through this philosophical lens, Lewens reveals what physics can teach us about reality, what biology teaches us about human nature, and what

cognitive science teaches us about human freedom. A masterful analysis of the biggest scientific and ethical issues of our age, The Meaning of Science forces us to confront the practical, personal, and political purposes of science -- and why it matters to all of us.

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 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.

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.

New essays offer an overview of current research into Leibniz' metaphysics, situating this distinctive philosophy of nature.

An Introduction to the Philosophy of Science
The Logic in Philosophy of Science
The Central Issues, Second International Student Edition
A Very Short Introduction
Philosophy of Medicine

Scientists use concepts and principles that are partly specific for their subject matter, but they also share 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 clarfication 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. 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 Niiniluto), 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 interdisciplinary audience No specific pre-knowledge required

How does science work? Does it tell us what the 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.

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.

In recent decades cognitive science has revolutionised our understanding of the workings of the human mind. Philosophy has made a major contribution to cognitive science and has itself been hugely influenced by its development. This dynamic book explores the philosophical significance of cognitive science and examines the central debates that have enlivened its history. In a wide-ranging and comprehensive account of the topic, philosopher M.J. Cain discusses the historical origins of cognitive science and its philosophical underpinnings; the nature and

role of representations in cognition; the architecture of the mind and the modularity thesis; the nature of concepts; knowledge of language and its acquisition; perception; and the relationship between the brain and cognition. Cain draws upon an extensive knowledge of empirical developments and their philosophical interpretation. He argues that although the field has generated some challenging new views in recent years, many of the core ideas that initiated its birth are still to be taken seriously. Clearly written and incisively argued, The Philosophy of Cognitive Science will appeal to any student or researcher

interested in the workings of the mind.
Understanding Philosophy of Science
What is Philosophy of Science?
The Growth of Scientific Knowledge
A Philosophy for the Science of Well-Being
Philosophy and the Sciences for Everyone
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 casusation, and the metaphysical implications of modern physics Provides an authoritative and accessible overview of the field

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

Conjectures and Refutations is one of Karl

Popper's most wide-ranging and popular works, notable not only for its acute insight into the way scientific knowledge grows, but also for applying those insights to politics and to history. It provides one of the clearest and most accessible statements of the fundamental idea that guided his work: not only our knowledge, but our aims and our standards, grow through an unending process of trial and error.

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.

Science and Religion: A Very Short Introduction
General Philosophy of Science: Focal Issues
Current Controversies in Philosophy of Science
Scientific Knowledge
Philosophy of Science for Biologists

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 explaination and the implications of radical theory change are clarified and clearly explained for those new to the subject.
A reprint of the Prentice-Hall edition of 1992. Prepared by nine distinguished philosophers and historians of science, this thoughtful reader represents a cooperative effort to provide an introduction to the philosophy of science focused on cultivating an understanding of both the workings of

science and its historical and social context. Selections range from discussions of topics in general methodology to a sampling of foundational problems in various physical, biological, behavioral, and social sciences. Each chapter contains a list of suggested readings and study questions.

The debate between science and religion is never out of the news: emotions run high, fuelled by polemical bestsellers like iThe God Delusion/i and, at the other end of the spectrum, high-profile campaigns to teach 'Intelligent Design' in schools. Yet there is much more to the debate than the clash of

these extremes. As Thomas Dixon shows in this balanced and thought-provoking introduction, a whole range of views, subtle arguments, and fascinating perspectives can be taken on this complex and centuries-old subject. He explores not only the key philosophical questions that underlie the debate, but also highlights the social, political, and ethical contexts that have made 'science and religion' such a fraught and interesting topic in the modern world. Along the way, he examines landmark historical episodes such as the Galileo affair, Charles Darwin's own religious and scientific odyssey, the Scopes

'Monkey Trial' in Tennessee in 1925, and the Dover Area School Board case of 2005, and includes perspectives from non-Christian religions and examples from across the physical, biological, and social sciences.

Growth of a New Discipline

Theory and Reality

Introduction to the Philosophy of Science

The Philosophy of Science

Philosophy of Biology