

Introductory Astronomy Tutorial Answers

Teaching text developed by U.S. Air Force Academy and designed as a first course emphasizes the universal variable formulation. Develops the basic two-body and n-body equations of motion; orbit determination; classical orbital elements, coordinate transformations; differential correction; more. Includes specialized applications to lunar and interplanetary flight, example problems, exercises. 1971 edition.

A Practical Guide to Observational Astronomy provides a practical and accessible introduction to the ideas and concepts that are essential to making and analyzing astronomical observations. A key emphasis of the book is on how modern astronomy would be impossible without the extensive use of computers, both for the control of astronomical instruments and the subsequent data analysis. Astronomers now need to use software to access and assess the data they produce, so understanding how to use computers to control equipment and analyze data is as crucial to modern astronomers as a telescope. Therefore, this book contains an array of practical problems for readers to test their knowledge, in addition to a wealth of examples and tutorials using Python on the author's website, where readers can download and create image processing scripts. This is an excellent study guide or textbook for an observational astronomy course for advanced undergraduate and graduate astronomy and physics students familiar with writing and running simple Python scripts. Key Features Contains the latest developments and technologies from astronomical observatories and telescope facilities on the ground and in space Accompanied by a companion website with examples, tutorials, Python scripts, and resources Authored by an observational astronomer with over thirty years of observing and teaching experience About the Author M. Shane Burns earned his BA in physics at UC San Diego in 1979. He began graduate work at UC Berkeley in 1979, where he worked on an automated search for nearby supernovae. After being awarded a PhD in 1985, Professor Burns became a postdoctoral researcher at the University of Wyoming. He spent the summer of 1988 as a visiting scientist at Lawrence Berkeley National Lab, where he helped found the Supernova Cosmology Project (SCP). He continued to work as a member of the SCP group while a faculty member at Harvey Mudd College, the US Air Force Academy, and Colorado College. The 2011 Nobel Prize in Physics was awarded to the leader of the SCP for the group's "discovery of the accelerating expansion of the Universe through observations of distant supernovae." During his career, Professor Burns has observed using essentially all of the world's great observatories, including the Keck Observatory and the Hubble Space Telescope.

Plain-language explanations and a rich set of supporting material help students understand the mathematical concepts and techniques of astronomy.

NOTE: Before purchasing, check with your instructor to ensure you select the correct ISBN. Several versions of Pearson's MyLab & Mastering products exist for each title, and registrations are not transferable. To register for and use Pearson's MyLab & Mastering products, you may also need a Course ID, which your instructor will provide. Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies other than Pearson, the access codes for Pearson's MyLab & Mastering products may not be included, may be incorrect, or may have been previously redeemed. Check with the seller before completing your purchase. A modular and highly visual approach to introductory astronomy Astronomy: The Universe at a Glance takes students on a spectacular journey across the vast cosmos. The Universe at a Glance introduces the structure and nature of the universe while emphasizing both the latest scientific findings and the process of scientific discovery. This new book by trusted authors Eric Chaisson and Steve McMillan reimagines their classic texts in a modularly organized, visual approach to learning. Here, the essential ideas, concepts, and discoveries of contemporary astronomy are presented in 15 chapters, each chapter composed of richly illustrated, two-page spreads designed to visually engage and instruct students. Complete with spectacular graphics and concise, compelling chapters, The Universe at a Glance packs an immense amount of awe-inspiring insights into a brief modular volume. Uniting engaging prose, fascinating details, and easy-to-follow Learning Outcomes, this accessible account of astronomy is flexible and fun, an ideal complement to a dynamic introductory course. The text is integrated with MasteringAstronomy to create an unrivalled learning suite for students and instructors. Personalize Learning with MasteringAstronomy® MasteringAstronomy from Pearson is the leading online homework, tutorial, and assessment system, designed to improve results by engaging students before, during, and after class with powerful content. Instructors ensure students arrive ready to learn by assigning educationally effective content before class, and encourage critical thinking and retention with in-class resources such as Learning Catalytics. Students can further master concepts after class through traditional and adaptive homework assignments that provide hints and answer-specific feedback. The Mastering gradebook records scores for all automatically graded assignments in one place, while diagnostic tools give instructors access to rich data to assess student understanding and misconceptions. Mastering brings learning full circle by continuously adapting to each student and making learning more personal than ever-before, during, and after class. 0321792998 / 9780321792990 Astronomy: The Universe at a Glance Plus MasteringAstronomy with eText -- Access Card Package, 1/e. Package consists of: 0321799763 / 9780321799760 Astronomy: The Universe at a Glance, 1/e 0321977432 / 9780321977434 MasteringAstronomy with Pearson eText -- ValuePack Access Card -- for Astronomy: The Universe at a Glance, 1/e

Lecture- Tutorials for Introductory Astronomy

The Prologue and Squire's Tale

Graphs: Or The Graphical Representation of Algebraic Functions

Elementary Mathematical Astronomy

College Physics

"Building on a long tradition of effective pedagogy and comprehensive presentation, The Cosmic Perspective includes an enhanced art program. This student-friendly text is now even more accessible through robust visual pedagogy via new Cosmic Context two-page illustrations, which walk students through key processes and summarize the major points of each Part, and via updated zoom-in figures which provide students with a sense of orientation, scale, and relation between images. In addition to an enhanced art program, the text also features new See It For Yourself boxes with practical hands-on activities for in-class use or self-study, and a new subset of Process of Science end-of-chapter questions that challenge students to think through how we know what we know about astronomy."--Product description.

The vital resource for grading all assignments from the Introduction To Logic course, which includes:Instructional insights enhanced with worksheets and additional practice sheetsSpecial chapter reviews at the beginning of each new chapter worksheet created to help students and teachers grasp the scope of each section.OVERVIEW: Welcome to the world of logic. This logic course will both challenge and inspire students to be able to defend their faith against atheists and skeptics alike. Because learning logical terms and principles is often like learning a foreign language, the course has been developed to help students of logic learn the practical understanding of logical arguments. To make the course content easier to grasp, the schedule provides worksheets and practice sheets to help students better recognize logical fallacies, as well as review weeks for the quizzes and the final. The practice sheets in the back of the book offer practical study for both the final exam and for actual arguments you might encounter online or in the media.FEATURES: The calendar provides daily sessions with clear objectives and worksheets, quizzes, and tests, all based on the readings from the course book.

The Wolfram Language represents a major advance in programming languages that makes leading-edge computation accessible to everyone. Unique in its approach of building in vast knowledge and automation, the Wolfram Language scales from a single line of easy-to-understand interactive code to million-line production systems. This book provides an elementary introduction to the Wolfram Language and modern computational thinking. It assumes no prior knowledge of programming, and is suitable for both technical and non-technical college and high-school students, as well as anyone with an interest in the latest technology and its practical application.

R is rapidly becoming the standard software for statistical analyses, graphical presentation of data, and programming in the natural, physical, social, and engineering sciences. Getting Started with R is now the go-to introductory guide for biologists wanting to learn how to use R in their research. It teaches readers how to import, explore, graph, and analyse data, while keeping them focused on their ultimate goals: clearly communicating their data in oral presentations, posters, papers, and reports. It provides a consistent workflow for using R that is simple, efficient, reliable, and reproducible. This second edition has been updated and expanded while retaining the concise and engaging nature of its predecessor, offering an accessible and fun introduction to the packages dplyr and ggplot2 for data manipulation and graphing. It expands the set of basic statistics considered in the first edition to include new examples of a simple regression, a one-way and a two-way ANOVA. Finally, it introduces a new chapter on the generalised linear model. Getting Started with R is suitable for undergraduates, graduate students, professional researchers, and practitioners in the biological sciences.

Foundations of Astrophysics

Foundations of Astronomy

An Introduction to Observational Astronomy

Introduction to Logic (Teacher Guide)

The Cosmic Perspective

"Lecture-Tutorials for Introductory Astronomy," which was developed by the Conceptual Astronomy and Physics Education Research (CAPER) Team, is a collection of classroom-tested activities designed for the large-lecture introductory astronomy class, although it is suitable for any astronomy class. The Lecture-Tutorials are short, structured activities designed for students to complete while working in pairs. Each activity targets one or more specific learning objectives based on research on student difficulties in astronomy. Most activities can be completed in 10 to 15 minutes. The instructor's guide provides, for each activity, the recommended prerequisite knowledge, the learning goals for the activity, a pre-activity assessment question, an answer key, suggestions for implementation, and follow-up questions to be used for class discussion or homework.

*An Introduction to Astronomical Photometry Using CCDs*By W. Romanishin

Funded by the National Science Foundation, Lecture-Tutorials for Introductory Astronomy is designed to help make large lecture-format courses more interactive with easy-to-implement student activities that can be integrated into existing course structures. The Second Edition of the Lecture-Tutorials for Introductory Astronomy contains nine new activities that focus on planetary science, system related topics, and the interactions of Light and matter. These new activities have been created using the same rigorous class-test development process that was used for the highly successful first edition. Each of the 38 Lecture-Tutorials, presented in a classroom-ready format, challenges students with a series of carefully designed questions that spark classroom discussion, engage students in critical reasoning, and require no equipment. The Night Sky: Position, Motion, Seasonal Stars, Solar vs. Sidereal Day, Ecliptic, Star Charts. Fundamentals of Astronomy: Kepler's 2nd Law, Kepler's 3rd Law, Newton's Laws and Gravity, Apparent and Absolute Magnitudes of Stars, The Parse, Parallax and Distance, Spectroscopic Parallax. Nature of Light in Astronomy: The Electromagnetic (EM) Spectrum of Light, Telescopes and Earth's Atmosphere, Luminosity, Temperature and Size, Blackbody Radiation, Types of Spectra, Light and Atoms, Analyzing Spectra, Doppler Shift. Our Solar System: The Cause of Moon Phases, Predicting Moon Phases, Path of Sun, Seasons, Observing Retrograde Motion, Earth's Changing Surface, Temperature and Formation of Our Solar System, Sun Size. Stars Galaxies and Beyond: H-R Diagram, Star Formation and Lifetimes, Binary Stars, The Motion of Extrasolar Planets, Stellar Evolution, Milky Way Scales, Galaxy Classification, Looking at Distant Objects, Expansion of the Universe. For all readers interested in astronomy.

Orbital Mechanics for Engineering Students, Second Edition, provides an introduction to the basic concepts of space mechanics. These include vector kinematics in three dimensions; Newton's laws of motion and gravitation; relative motion; the vector-based solution of the classical two-body problem; derivation of Kepler's equations; orbits in three dimensions; preliminary orbit determination; and orbital maneuvers. The book also covers relative motion and the two-impulse rendezvous problem; interplanetary mission design using patched conics; rigid-body dynamics used to characterize the attitude of a space vehicle; satellite attitude dynamics; and the characteristics and design of multi-stage launch vehicles. Each chapter begins with an outline of key concepts and concludes with problems that are based on the material covered. This text is written for undergraduates who are studying orbital mechanics for the first time and have completed courses in physics, dynamics, and mathematics, including differential equations and applied linear algebra. Graduate students, researchers, and experienced practitioners will also find useful review materials in the book. NEW: Reorganized and improved discussions of coordinate systems, new discussion on perturbations and quaternions NEW: Increased coverage of attitude dynamics, including new Matlab algorithms and examples in chapter 10 New examples and homework problems

Tutorial Guide to X-ray and Gamma-ray Astronomy

A Bibliography

Introduction to Astronomy and Cosmology

Stars & Galaxies

Getting Started with R

For courses in Introductory Astronomy. Connects introductory astronomy to a broad understanding of the universe In this Ninth Edition of Astronomy Today , authors Eric Chaisson and Steve McMillan communicate their excitement about astronomy, combining up-to-date science with insightful pedagogy. The text emphasizes visualization, focusing on the process of scientific discovery in order to teach readers "how we know what we know." Updated features in the 9th Edition, Big Pictures and Big Questions, help readers connect the content of each chapter with a broader understanding of the universe while piquing interest in current research. New features within Mastering™ Astronomy bring these features together and allow readers to interact with astronomy outside of the classroom. The 9th Edition has also been thoroughly updated and revised to reflect recent discoveries in the field of astronomy. Also available with Mastering Astronomy Mastering™ Astronomy is the leading online homework, tutorial, and assessment system, designed to improve results by engaging students with powerful, interactive content. Instructors ensure students arrive ready to learn by assigning new Interactive pre-lecture videos that give students exposure to key concepts before class and open classroom time for active learning or deeper discussions of topics. With Learning Catalytics™ instructors can expand on key concepts and encourage student engagement during lecture through questions answered individually or in pairs and groups. Students further master concepts through book-specific Mastering Astronomy assignments, which provide hints and answer-specific feedback that build problem-solving skills. Mastering Astronomy now features Virtual Astronomy Labs, providing assignable online laboratory activities that use Stellarium and Interactive Figures. Note: You are purchasing a standalone product; Mastering™ Astronomy does not come packaged with this content. Students, if interested in purchasing this title with Mastering Astronomy, ask your instructor for the correct package ISBN and Course ID. Instructors, contact your Pearson representative for more information. If you would like to purchase both the physical text and Mastering Astronomy, search for: 0321901673 / 9780321901675 Astronomy Today 0321909860 / 9780321909862 Mastering Astronomy with Pearson eText -- ValuePack Access Card -- for Astronomy Today Package Package consists of: 0321901673 / 9780321901675 Astronomy Today 0321909860 / 9780321909862 Mastering Astronomy with Pearson eText -- ValuePack Access Card -- for Astronomy Today

This content- and feature-rich Web site is the ideal online component to any introductory astronomy lecture course.

This book provides a comprehensive introduction to X-ray and gamma-ray astronomy. The first part discusses the basic theoretical and observational topics related to black hole astrophysics; the optics and the detectors employed in X-ray and gamma-ray astronomy; and past, present, and future X-ray and gamma-ray missions. The second part then describes data reduction and analysis, the statistics used in X-ray and gamma-ray astronomy, and demonstrates how to write a successful proposal and a scientific paper. Data reduction in connection with specific X-ray and gamma-ray missions is covered in the appendices. Presenting the state of the art in X-ray and gamma-ray astronomy, this is both a valuable textbook for students and an important reference resource for researchers in the field.

Lecture-Tutorials for Introductory Astronomy provides a collection of 44 collaborative learning, inquiry-based activities to be used with introductory astronomy courses. Based on education research, these activities are "classroom ready" and lead to deeper, more complete understanding through a series of structured questions that prompt you to use reasoning and identify and correct their misconceptions. All content has been extensively field tested and six new tutorials have been added that respond to reviewer demand, numerous interviews, and nationally conducted workshops.

An Introduction to Astronomical Photometry Using CCDs

Evidence Based Instruction for Introductory Courses. Volume 1

British Books in Print

Lecture Tutorials for Introductory Astronomy - Preliminary Version

The Cosmic Perspective Fundamentals Plus Masteringastronomy with Pearson Etext -- Access Card Package

The proceedings of CAM-94 comprise invited talks on topics in applied physics and technology, astronomy and astrophysics, atomic and molecular physics, biophysics, condensed matter physics, education, elementary particle physics, mathematical physics and gravitation, nuclear physics, optics, physics Astronomy is a popular subject for non-science majors in the United States, often representing a last formal exposure to science. Research has demonstrated the efficacy of active learning, but college astronomy instructors are often unaware of the tools and methods they can use to increase student comprehension and engagement. This book focuses on practical implementation of evidence-based strategies that are supported by research literature. Chapter topics include an overview of learner-centered theories and strategies for course design and implementation, the use of Lecture-Tutorials, the use of technology and simulations to support learner-centered teaching, the use of research-based projects, citizen science, World Wide Telescope and planetariums in instruction, an overview of assessment, considerations for teaching at a community college, and strategies to increase the inclusivity of courses. This is the updated, widely revised, restructured and expanded third edition of Léna et al.'s successful work Observational Astrophysics. It presents a synthesis on tools and methods of observational astrophysics of the early 21st century. Written specifically for astrophysicists and graduate students, this textbook focuses on fundamental and sometimes practical limitations on the ultimate performance that an astronomical system may reach, rather than presenting particular systems in detail. In little more than a decade there has been extraordinary progress in imaging and detection technologies, in the fields of adaptive optics, optical interferometry, in the sub-millimetre waveband, observation of neutrinos, discovery of exoplanets, to name but a few examples. The work deals with ground-based and space-based astronomy and their respective fields. And it also presents the ambitious concepts behind space missions aimed for the next decades. Avoiding particulars, it covers the whole of the electromagnetic spectrum, and provides an introduction to the new forms of astronomy becoming possible with gravitational waves and neutrinos. It also treats numerical aspects of observational astrophysics: signal processing, astronomical databases and virtual observatories.

A contemporary and complete introduction to astrophysics for astronomy and physics majors taking a two-semester survey course.

Lecture Tutorials for Introductory Astronomy

An Elementary Introduction to the Wolfram Language

Observational Astrophysics

Proceedings of the Conference Held in Cancun, Mexico, September 1994

Orbital Mechanics for Engineering Students

ALERT: Before you purchase, check with your instructor or review your course syllabus to ensure that you select the correct ISBN. Several versions of Pearson's MyLab & Mastering products exist for each title, including customized versions for individual schools, and registrations are not transferable. In addition, you may need a CourseID, provided by your instructor, to register for and use Pearson's MyLab & Mastering products.PackagesAccess codes for Pearson's MyLab & Mastering products may not be included when purchasing or renting from companies other than Pearson; check with the seller before completing your purchase. Used or rental booksIf you rent or purchase a used book with an access code, the access code may have been redeemed previously and you may have to purchase a new access code. Access codesAccess codes that are purchased from sellers other than Pearson carry a higher risk of being either the wrong ISBN or a previously redeemed code. Check with the seller prior to purchase. 0133858642 / 9780133858648 Cosmic Perspective Fundamentals Plus MasteringAstronomy with eText, The -- Access Card Package Package consists of: 0133889564 / 9780133889567 Cosmic Perspective Fundamentals, The 0133905306 / 9780133905304 MasteringAstronomy with Pearson eText -- ValuePack Access Card -- for The Cosmic Perspective Fundamentals 0321712951 / 9780321712950 Starry Night College Student Access Code Card 0321765184 / 9780321765185 SkyGazer 5.0 Student Access Code Card (Integrated component)

An Introduction to Modern Cosmology Third Edition is an accessible account of modern cosmological ideas. The Big Bang Cosmology is explored, looking at its observational successes in explaining the expansion of the Universe, the existence and properties of the cosmic microwave background, and the origin of light elements in the universe. Properties of the very early Universe are also covered, including the motivation for a rapid period of expansion known as cosmological inflation. The third edition brings this established undergraduate textbook up-to-date with the rapidly evolving observational situation. This fully revised edition of a bestseller takes an approach which is grounded in physics with a logical flow of chapters leading the reader from basic ideas of the expansion described by the Friedman equations to some of the more advanced ideas about the early universe. It also incorporates up-to-date results from the Planck mission, which imaged the anisotropies of the Cosmic Microwave Background radiation over the whole sky. The Advanced Topic sections present subjects with more detailed mathematical approaches to give greater depth to discussions. Student problems with hints for solving them and numerical answers are embedded in the chapters to facilitate the reader's understanding and learning. Cosmology is now part of the core in many degree programs. This current, clear and concise introductory text is relevant to a wide range of astronomy programs worldwide and is essential reading for undergraduates and Masters students, as well as anyone starting research in cosmology. The accompanying website for this text, <http://booksupport.wiley.com>, provides additional material designed to enhance your learning, as well as errata within the text.

Astronomy is written in clear non-technical language, with the occasional touch of humor and a wide range of clarifying illustrations. It has many analogies drawn from everyday life to help non-science majors appreciate, on their own terms, what our modern exploration of the universe is revealing. The book can be used for either aone-semester or two-semester introductory course (bear in mind, you can customize your version and include only those chapters or sections you will be teaching.) It is made available free of charge in electronic form (and low cost in printed form) to students around the world. If you have ever thrown up your hands in despair over the spiraling cost of astronomy textbooks, you owe your students a good look at this one. Coverage and Scope Astronomy was written, updated, and reviewed by a broad range of astronomers and astronomy educators in a strong community effort. It is designed to meet scope and sequence requirements of introductory astronomy courses nationwide. Chapter 1: Science and the Universe: A Brief Tour Chapter 2: Observing the Sky: The Birth of Astronomy Chapter 3: Orbits and Gravity Chapter 4: Earth, Moon, and Sky Chapter 5: Radiation and Spectra Chapter 6: Astronomical Instruments Chapter 7: Other Worlds: An Introduction to the Solar System Chapter 8: Earth as a Planet Chapter 9: Cratered Worlds Chapter 10: Earthlike Planets: Venus and Mars Chapter 11: The Giant Planets Chapter 12: Rings, Moons, and Pluto Chapter 13: Comets and Asteroids: Debris of the Solar System Chapter 14: Cosmic Samples and the Origin of the Solar System Chapter 15: The Sun: A Garden-Variety Star Chapter 16: The Sun: A Nuclear Powerhouse Chapter 17: Analyzing Starlight Chapter 18: The Stars: A Celestial Census Chapter 19: Celestial Distances Chapter 20: Between the Stars: Gas and Dust in Space Chapter 21: The Birth of Stars

and the Discovery of Planets outside the Solar System Chapter 22: Stars from Adolescence to Old Age Chapter 23: The Death of Stars Chapter 24: Black Holes and Curved Spacetime Chapter 25: The Milky Way Galaxy Chapter 26: Galaxies Chapter 27: Active Galaxies, Quasars, and Supermassive Black Holes Chapter 28: The Evolution and Distribution of Galaxies Chapter 29: The Big Bang Chapter 30: Life in the Universe Appendix A: How to Study for Your Introductory Astronomy Course Appendix B: Astronomy Websites, Pictures, and Apps Appendix C: Scientific Notation Appendix D: Units Used in Science Appendix E: Some Useful Constants for Astronomy Appendix F: Physical and Orbital Data for the Planets Appendix G: Selected Moons of the Planets Appendix H: Upcoming Total Eclipses Appendix I: The Nearest Stars, Brown Dwarfs, and White Dwarfs Appendix J: The Brightest Twenty Stars Appendix K: The Chemical Elements Appendix L: The Constellations Appendix M: Star Charts and Sky Event Resources

Donald D. Clayton's *Principles of Stellar Evolution and Nucleosynthesis* remains the standard work on the subject, a popular textbook for students in astronomy and astrophysics and a rich sourcebook for researchers. The basic principles of physics as they apply to the origin and evolution of stars and physical processes of the stellar interior are thoroughly and systematically set out. Clayton's new preface, which includes commentary and selected references to the recent literature, reviews the most important research carried out since the book's original publication in 1968.

Fundamentals of Astrodynamics

A Text-book of Sound

To Measure the Sky

Astronomy Education

Astronomy Today

0134478460 / 9780134478463 The Cosmic Perspective Fundamentals Plus MasteringAstronomy with Pearson eText -- Access Card Package Package consists of: 0133889564 / 9780133889567 Cosmic Perspective Fundamentals, The 0133905306 / 9780133905304 MasteringAstronomy with Pearson eText -- ValuePack Access Card -- for The Cosmic Perspective Fundamentals 0321765184 / 9780321765185 SkyGazer 5.0 Student Access Code Card (Integrated component)

Lecture-Tutorials for Introductory Astronomy were developed to integrate the needs of busy, research-focused faculty who teach in challenging environments with existing, effective teaching strategies. Chapter topics include the Solar System, stellar magnitudes, techniques in astronomy, moon phases, stellar evolution, and more. For college professors, instructors and other professionals who are interested in a lively, engaging method of teaching introductory astronomy.

Lecture- Tutorials for Introductory Astronomy Addison-Wesley

ALERT: Before you purchase, check with your instructor or review your course syllabus to ensure that you select the correct ISBN. Several versions of Pearson's MyLab & Mastering products exist for each title, including customized versions for individual schools, and registrations are not transferable. In addition, you may need a CourseID, provided by your instructor, to register for and use Pearson's MyLab & Mastering products. NOTE: Make sure to use the dashes shown on the Access Card Code when entering the code. Student can use the URL and phone number below to help answer their questions: <http://247pearsoned.custhelp.com/app/home> 800-677-6337 0134516311 / 9780134516318 Astronomy Today Plus MasteringAstronomy with eText -- Access Card Package, 9/e Package consists of: 0134446631 / 9780134446639 MasteringAstronomy with Pearson eText -- ValuePack Access Card -- for Astronomy Today 0134450272 / 9780134450278 Astronomy Today "

An Introduction to Modern Cosmology

Astronomy Today Plus MasteringAstronomy with EText -- Access Card Package

Principles of Stellar Evolution and Nucleosynthesis

With Examples and Examination Papers

For courses in Introductory Astronomy. Connects introductory astronomy to a broad understanding of the universe In this Ninth Edition of *Astronomy Today*, authors Eric Chaisson and Steve McMillan communicate their excitement about astronomy, combining up-to-date science with insightful pedagogy. The text emphasizes visualization, focusing on the process of scientific discovery in order to teach readers "how we know what we know." Updated features in the 9th Edition, Big Pictures and Big Questions, help readers connect the content of each chapter with a broader understanding of the universe while piquing interest in current research. New features within Mastering (TM) Astronomy bring these features together and allow readers to interact with astronomy outside of the classroom. The 9th Edition has also been thoroughly updated and revised to reflect recent discoveries in the field of astronomy. Also available with Mastering Astronomy Mastering (TM) Astronomy is the leading online homework, tutorial, and assessment system, designed to improve results by engaging students with powerful, interactive content. Instructors ensure students arrive ready to learn by assigning new Interactive pre-lecture videos that give students exposure to key concepts before class and open classroom time for active learning or deeper discussions of topics. With Learning Catalytics(TM) instructors can expand on key concepts and encourage student engagement during lecture through questions answered individually or in pairs and groups. Students further master concepts through book-specific Mastering Astronomy assignments, which provide hints and answer-specific feedback that build problem-solving skills. Mastering Astronomy now features Virtual Astronomy Labs, providing assignable online laboratory activities that use Stellarium and Interactive Figures. Note: You are purchasing a standalone product; Mastering (TM) Astronomy does not come packaged with this content. Students, if interested in purchasing this title with Mastering Astronomy, ask your instructor for the correct package ISBN and Course ID. Instructors, contact your Pearson representative for more information. If you would like to purchase both the physical text and Mastering Astronomy, search for: 0321897617 / 9780321897619 Astronomy Today Plus Mastering Astronomy with eText -- Access Card Package Package consists of: 0321901673 / 9780321901675 Astronomy Today 0321909860 / 9780321909862 Mastering Astronomy with Pearson eText -- ValuePack Access Card -- for Astronomy Today

Mastering Astronomy with Pearson eText -- ValuePack Access Card -- for Astronomy Today

With a lively yet rigorous and quantitative approach, this textbook introduces the fundamental topics in optical observational astronomy for undergraduates. It explains the theoretical foundations for observational practices and reviews essential physics to support students' mastery of the subject. Student understanding is strengthened through over 120 exercises and problems.

Introduction to Astronomy & Cosmology is a modern undergraduate textbook, combining both the theory behind astronomy with the very latest developments. Written for science students, this book takes a carefully developed scientific approach to this dynamic subject. Every major concept is accompanied by a worked example with end of chapter problems to improve understanding Includes coverage of the very latest developments such as double pulsars and the dark galaxy. Beautifully illustrated in full colour throughout Supplementary web site with many additional full colour images, content, and latest developments.

The Cosmic Perspective Fundamentals + Masteringastronomy With Etext

Data Reduction and Analysis

A Student's Guide to the Mathematics of Astronomy

Astronomy Today, Books a la Carte Edition

Astronomy