



provide the background necessary in several areas in order to facilitate the reader's comprehension of their respective roles in Networking. This book reviews state-of-the-art. This is the first book that explains how computer networks work inside, from the hardware technology up to and including the most popular Internet application protocols.

For courses in Networking/Communications. Motivate your students with a top-down, layered approach to computer networking Unique among computer networking texts, the Seventh Edition of the popular Computer Networking: A Top Down Approach builds on the author's long tradition of teaching this complex subject through a layered approach in a "top-down manner." The text works its way from the application layer down toward the physical layer, motivating students by exposing them to important concepts early in their study of networking. Focusing on the Internet and the fundamentally important issues of networking, this text provides an excellent foundation for students in computer science and electrical engineering, without requiring extensive knowledge of programming or mathematics. The Seventh Edition has been updated to reflect the most important and exciting recent advances in networking.

MasteringComputerScience™ not included. Students, if MasteringComputerScience is a recommended/mandatory component of the course, please ask your instructor for the correct ISBN and course ID. MasteringComputerScience should only be purchased when required by an instructor.

Mastering Computer Networking Technologies is designed to help students understand the basics of data communications and networking, and the protocols used in the Internet in particular by using the protocol layering of the Internet and TCP/IP protocol suite. Technologies related to data communication and networking may be the fastest growing in today's culture. The appearance of some new social networking applications is a testimony to this claim. In this Internet-oriented society, specialists need to be trained to run and manage the Internet, part of the Internet, or an organization's network that is connected to the Internet. As both the number and types of students are increasing, it is essential to have a textbook that provides coverage of the latest advances, while presenting the material in a way that is accessible to students with little or no background in the field. Using a top-down approach, Mastering Computer Networking Technologies presents this highly technical subject matter without relying on complex formulas by using a strong pedagogical approach supported by numerous figures. This textbook brings the beginning student right to the forefront of the latest advances in the field, while presenting the fundamentals in a clear, straightforward manner. Students will find better coverage, improved figures and better explanations on cutting-edge material. The "top-down" approach allows instructors to cover the material in one course, rather than having separate courses on data communications and networking.

Overview: Building on the successful top-down approach of previous editions, the Sixth Edition of Computer Networking continues with an early emphasis on application-layer paradigms and application programming interfaces, encouraging a hands-on experience with protocols and networking concepts. With this edition, Kurose and Ross have revised and modernized treatment of some key chapters to integrate the most current and relevant networking technologies.

Networking today involves much more than standards specifying message formats and protocol behaviors-and it is far more interesting. Professors Kurose and Ross focus on describing emerging principles in a lively and engaging manner and then illustrate these principles with examples drawn from Internet architecture.

Computer Networks: A comprehensive top-down approach explores the key principles of computer networking, with examples drawn from the real world of network and protocol design. Using the Internet as the primary example, this best-selling and classic textbook explains various protocols and networking technologies. The top-down oriented approach encourages students to think about how individual network components fit into a larger, complex system of interactions. This book has a completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including 5G, WiFi, network security, and network applications. There is now increased focus on application layer issues where innovative and exciting research and design is currently the center of attention. Other topics include network design and architecture; the ways users can connect to a network; the concepts of switching, routing, and internetworking; end-to-end protocols; congestion control and resource allocation; and end-to-end data. This book is written for graduate or upper-division undergraduate classes in computer networking. It will also be useful for industry professionals retraining for network-related assignments, as well as for network practitioners seeking to understand the workings of network protocols and the big picture of networking. - Completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students. - Increased focus on application layer issues where innovative and exciting research and design is currently the center of attention

This third edition of a classic textbook can be used to teach at the senior undergraduate and graduate levels. The material concentrates on fundamental theories as well as techniques and algorithms. The advent of the Internet and the World Wide Web, and, more recently, the emergence of cloud computing and streaming data applications, has forced a renewal of interest in distributed and parallel data management, while, at the same time, requiring a rethinking of some of the traditional techniques. This book covers the breadth and depth of this re-emerging field. The coverage consists of two parts. The first part discusses the fundamental principles of distributed data management and includes distribution design, data integration, distributed query processing and optimization, distributed transaction management, and replication. The second part focuses on more advanced topics and includes discussion of parallel database systems, distributed object management, peer-to-peer data management, web data management, data stream systems, and cloud computing. New in this Edition: • New chapters, covering database replication, database integration, multidatabase query processing, peer-to-peer data management, and web data management. • Coverage of emerging topics such as data streams and cloud computing • Extensive revisions and updates based on years of class testing and feedback Ancillary teaching materials are available.

This new networking text follows a top-down approach. The presentation begins with an explanation of the application



