



COMPUTER SCIENCE 2020

Learning Solutions from Cengage

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WELCOME!

Welcome to the Computer Science brochure featuring our new and best-selling titles for 2020. We hope you enjoy browsing through the peer reviewed content and learning solutions for courses across the curriculum.

To request an inspection copy or to arrange a demonstration of a learning solution, please complete the form on page 11 or visit our website where you will also discover:

 Case studies of higher education institutions using Cengage learning solutions and their outcomes including this from Cass Business School, UK:

Driving Student Employability with MindTap $\lceil \frac{7}{4} \rceil$



Ν

- · Full details of every Cengage title
- The Student Voices research report

Best wishes Cengage

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Programming / Computer Science / Web Development

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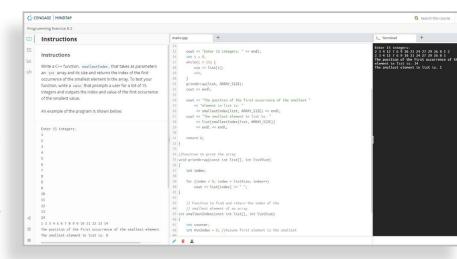
MindTap is a fully customisable online teaching and assessment tool. It provides course content and study materials that improve engagement and student grades, all designed specifically for your course.

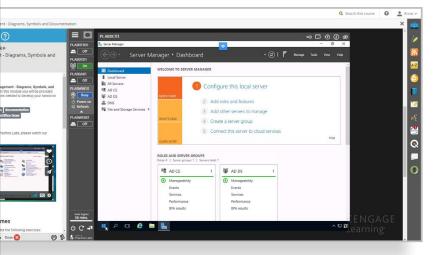
Find out more information about MindTap, visit cengage.co.uk/mindtap

Programming

Integrated Development Environment in MindTap for your Computer Science, Programming, and Web Development courses.

Seamlessly integrated into the MindTap Learning Path, hands-on coding labs allow students to code directly in MindTap's IDE from their web browser. The auto-graded assignments are mapped to each chapter of the text and provide students with point-of-need feedback, allowing them to see how they are progressing through the assignment in real-time.





Networking and Security

Our Live Virtual Machine Labs seamlessly integrate into MindTap and require no installation, allowing students to work directly with live servers and networking hardware from their web browser.

Live Virtual Machine Labs provide students with a live working environment via the Cloud, with real servers and networks that they can explore, fail and try again until they succeed



DOWNLOAD THE CENGAGE MOBILE APP

Cengage Mobile enables students to study, read, and revise on their smartphone or tablet, and with 24/7 course access, students stay focused and ready to learn anytime, anywhere.

Download from





Prepare students for success in Computer Science with bestselling titles from authors such as D.S Malik and Joyce Farrell. Whether you're teaching an Introduction to Computer Science, Web Development or Programming, Cengage have a title to meet your teaching needs. From Concepts to C++, there are a range of titles that span a variety of levels. Many of Cengage's Programming titles are available with MindTap, which contains a live Integrated Development Environment in which students can gain hands-on practice in writing and running code, ensuring students excel in their introductory course and beyond.

Available with MINDTAP

Java Programming

9th Edition

© 2019 | 9781337397070

Introduce beginner programmers to the power of Java™ for developing applications with the engaging, hands-on approach in Farrell's Java Programming. With this dynamic text, even first-time programmers can quickly develop useful programs while mastering the basic principles of structured and objectoriented programming. This edition presents reader-friendly explanations and meaningful programming exercises that highlight today's business applications, game creation, debugging exercises, and case problems.



Available with MINDTAP

C++ Programming

From Problem Analysis to Program Design 5th Edition

Malik

© 2018 | 9781337102087

Introduce your students to programming with C++ using today's definitive choice for teaching a first programming language. Malik's time-tested, student-centered methodology incorporates a strong focus on problemsolving with full-code examples that vividly demonstrate the hows and whys of applying programming concepts and utilizing C++ to work through problems. Students review the new features of C++ 14 Standard with timely discussions that further ensure this edition is the best choice to meet the needs of your modern CS1 course.

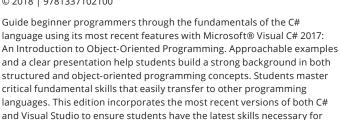


Microsoft Visual C#

An Introduction to Object-Oriented **Programming**

7th Edition

© 2018 | 9781337102100





professional success.

Fundamentals of Python

First Programs and Data Structures 2nd Edition

Lambert

© 2019 | 9781337560092

Present the required fundamentals of computer science while preparing students for further study with the unique, appealing approach in Lambert's Fundamentals of Python: First Programs. Students start with simple algorithmic code before they scale into functions, objects, and classes as problems become more complex and require new abstraction mechanisms. Rather than confining students to numeric or text-based applications like other introductory texts, this book builds motivation by presenting graphics, image manipulation, GUIs, and simple networked client/server applications. The author uses Python's standard Turtle graphics module to introduce graphics and provide open source frameworks for easy image processing and GUI application development.



Microsoft Visual Basic 2017 for Windows, Web, and Database **Applications: Comprehensive**

1st Edition

Hoisington

© 2018 | 9781337102117



This edition's innovative, step-by-step presentation blends insightful demonstrations of professional programs with in-depth discussions of programming concepts and techniques. Students practice what they've learned with numerous independent programming assignments in each chapter. This new volume retains the most effective, popular features from previous editions while emphasizing the changing development process in today's increasingly mobile-oriented world. Use this edition to provide a strong initial foundation for the number one job in today's tech sector -- app development -- as your students gain a valuable understanding of Windows® programming for 2017.

Web Design

Introductory 6th Edition

Campbell

© 2018 | 9781337277938



Written specifically for your introductory course, this edition provides a proven selection of engaging hands-on activities at the end of each chapter. These leading exercises test comprehension and help students build effective web research skills, develop design awareness, and strengthen their critical thinking about current issues in today's technology. Written in a clear and engaging style, Web Design: Introductory helps your students establish a strong foundation in contemporary web design skills while gaining a strong understanding of today's most relevant web topics, including SEO, HTML, and responsive web design.

Available with MINDTAP

New Perspectives HTML5 and CSS3

Comprehensive

7th Edition

Carey

© 2018 | 9781305503939



HTML5 and CSS3

Teach your students to build effective websites using the real-world case scenarios found in New Perspectives HTML5 and CSS3: Comprehensive. This user-friendly, complete text does not require any prior knowledge of the subject nor specialized software other than a basic editor and Web browser. Each tutorial is based on a case problem that leads students through the creation of a website while they master new techniques and complex concepts. Students strengthen their problem-solving skills by working through realistic exercises that help them retain the material and apply what they've learned in a professional environment.

Available with MINDTAP

Programming Logic And Design, Introductory

5th Edition

Farrell

© 2018 | 9781337109635



Teach the fundamental principles of developing structured program logic with Farrell's Programming Logic and Design: Introductory. A popular choice for foundational programming, this proven text takes a unique, language-independent approach with a distinct emphasis on modern conventions. Noted for its clear writing, the book eliminates highly technical jargon while introducing universal programming concepts and ensuring strong programming and logical thinking.

Foundations of **Computer Science**

4th Edition

Forouzan

© 2018 | 9781473751040

Based on the Association for Computing Imagery model curriculum guidelines, Foundations of

Computer Science gives students a bird's eye view of Computer Science. This easy-to-read and easy-to-navigate text covers all the fundamentals of computer science required for first year undergraduates embarking on a computing degree. Updated to cover the latest technologies and changes to course requirements, this fourth edition features new chapters, including new coverage on social media and ethical issues.



Invitation to Computer Science

7th Edition

Schneider & Gersting

© 2016 | 9781305075771 This edition of Invitation to Computer Science provides a flexible, non-language-specific, algorithmcentred approach that's ideal for your students' first introduction to

computer science. Including exercises, practice problems, and feature boxes Invitation to Computer Science provides real-life context whilst also covering the latest material on privacy, drones, cloud computing, and net neutrality. Optional online language modules for C++, Java, Python, C#, and Ada let students learn a programming language. The authors have also added discussions emphasising the importance of checking the validity of online sources while providing resources for critical analysis.



Programming Concepts

Available with MINDTAP

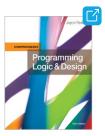
Programming Logic And Design

Comprehensive

9th Edition

Earroll

© 2018 | 9781337102070



Java

Java™ Programs for Programming Logic and Design

8th Edition

Smith

© 2015 | 9781285867403



Java™ Programming

From Problem Analysis to Program Design 5th Edition

Malik

© 2012 | 9781111530532



C#

C# Programming

From Problem Analysis to Program Design 5th Edition

Doyle

© 2016 | 9781285856872



Python

Fundamentals of Python

Data Structures 2nd Edition

Lambert

© 2019 | 9780357122754



C++

Available with MINDTAP

C++ Programming

Program Design Including Data Structures 8th Edition

Malik

© 2018 | 9781337117562



An Introduction to Programming with C++

8th Edition

Zak

© 2016 | 9781285860114



Visual Basics

Available with MINDTAP

Microsoft Visual Basic 2017 for Windows Applications: Introductory

1st Edition

Hoisington

© 2018 | 9781337279208



Available with MINDTAP

Programming with Microsoft Visual Basic 2017

8th Edition

Zak

© 2018 | 9781337102124



Microsoft® Visual Basic Programs to Accompany Programming Logic and Design

8th Edition

Smith

© 2015 | 9781285867397



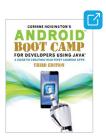
Mobile Programming

Android Boot Camp for Developers Using Java®

A Guide to Creating Your First Android Apps 3rd Edition

Hoisington

© 2016 | 9781305857995



Web Concepts

JavaScript

The Web Warrior Series

6th Edition

Vodnik & Gosselin

Comprehensive

8th Edition

© 2015 | 9781305078444

Web Design with HTML & CSS3



Web Design & Development

Available with MINDTAP

New Perspectives HTML5 and CSS3

Comprehensive

7th Edition

Carev

© 2018 | 9781305503939



Principles of Web Design

The Web Warrior Series

© 2017 | 9781305578166

6th Edition

Sklar

© 2015 | 9781285852645



Available with MINDTAP

New Perspectives on HTML5, CSS3, and JavaScript

6th Edition

Carey

© 2018 | 9781305503922



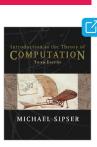
Theory of Computation

Introduction to the Theory of Computation

3rd Edition

Sipser

© 2013 | 9781133187790



principles of web design

Ethics

Available with MINDTAP

Ethics in Information Technology

6th Edition

Reynolds

© 2019 | 9781337405874



NETWORKING

Help students master the technical skills and industry know-how to begin an exciting career installing, configuring, and troubleshooting computer networks with Cengage's Networking titles. Whether you're teaching an introductory networking course or helping students to prepare for success on CompTIA's Network+ Certifications, Cengage have a title that can support your teaching. Many of Cengage's Networking titles are available with MindTap, with live virtual machine labs to give students hands-on networking practice.

NEW EDITION

Guide to Networking Essentials

8th Edition

Tomsho

© 2020 | 9780357118283

Tomsho's *Guide to Networking Essentials* gives students the knowledge and hands-on skills to work with network infrastructure devices and network operating systems in a small to midsize network environment. Focusing on troubleshooting and computer networking technologies, it provides a comprehensive introduction to network protocols and network devices, including wireless and cybersecurity technologies.



Available with MINDTAP

Network+ Guide to Networks

8th Edition

West, Dean & Andrews © 2019 | 9781337569330

Prepare students for success on CompTIA's Network+
N10-007 certification exam with fully mapped
coverage of all objectives, including protocols, topologies, hardware,
network design, security and troubleshooting. An all-new structure makes
essential information easily accessible and helps students visualize highlevel concepts. New virtualization-based projects give students experience

working with a wider variety of hardware, software, operating systems and

Networks Guide to Networks

Signth Action

Jan West

Jan

Understanding Operating Systems

success in working with today's systems.

8th Edition McHoes & Flynn

© 2018 | 9781305674257

Provide a clear, straightforward explanation of both operating system theory and practice for your students with Understanding Operating Systems. Fully updated, timely content offers an expanded analysis of how innovations, such as multi-core processing and wireless technologies, have impacted today's operating systems. Revised Research Topics within this edition's practical exercises encourage independent student research of emerging and influential topics. Updates throughout the final four chapters now highlight information on the most current versions of UNIX (including the latest Macintosh OS), Linux, Windows, and Android to prepare your students for



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device interactions.

Hands on Virtual Computing

2nd Edition

Simpson & Novak

© 2018 | 9781337101936

Hands-On Virtual Computing overviews the latest virtualization technology with chapters dedicated to

Hands-On
Virtual Computing

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Oracle VirtualBox, VMware Workstation, Microsoft Hyper-V, and VMware vSphere. Additional chapters focus on virtualization in software-defined data centers and address building virtual networks, implementing highavailability clusters, enhancing performance and security, and managing the virtual data center. Students learn to implement virtual desktop infrastructures using both VMware Horizon and Microsoft VDI and are exposed to cloud computing environments with VMware vCloud and Microsoft Azure.

Linux

Available with MINDTAP

Linux+ and LPIC-1 Guide to **Linux Certification**

5th Edition

Eckert

© 2020 | 9781337569798



MCSA/MCTS/MCITP

Hands-On Microsoft® Windows® Server 2016

2nd Edition

Palmer

© 2018 | 9781305078628



Operating Systems

Guide to Operating Systems

Guide to Parallel Operating

Carswell, Jiang, Hardee, Mahajan, Touchette

Systems with Windows® 10 and

5th Edition

Tomsho

Linux

3rd Edition

© 2017 | 9781305107649

© 2017 | 9781305107120



Available with MINDTAP

MCSA Guide to Installation, Storage, and Compute with Microsoft® Windows Server®2016, Exam 70-740

1st Edition

Tomsho

© 2018 | 9781337400664



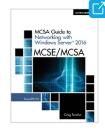
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MCSA Guide to Networking with Windows Server® 2016, Exam 70-741

2nd Edition

Tomsho

© 2018 | 9781337400787



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Available with MINDTAP

MCSA Guide to Identity with Windows Server® 2016, Exam 70-742

1st Edition

Tomsho

© 2018 | 9781337400893

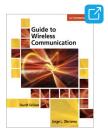


Wireless

Guide to Wireless Communications

4th Edition

© 2017 | 9781305958531



CWNA Guide to Wireless LANs

3rd Edition

Ciampa

© 2013 | 9781133132172

INFORMATION SECURITY

Cengage's Information Security titles contain the latest technology and developments from the field, with bestselling titles from Michael Whitman and Herbert Mattord. Whether you're teaching an introductory course or preparing students for CompTIA's Security+ Certification, Cengage have resources to ensure students succeed in their Information Security course.

Available with MINDTAP

CompTIA Security+ Guide to a **Network Security Fundamentals**

6th Edition

Ciampa

© 2018 | 9781337288781



MANAGEMENT OF INFORMATION SECURITY

This bestselling CompTIA title thoroughly prepares readers for professional certification and career success. The text covers threats, attacks, and vulnerabilities; technologies and tools for combating attacks, architecture, and design; identity and access management; risk management; and cryptography. It also includes expansive coverage of embedded device security, attacks and defenses, and the latest developments and trends in information security, including new software tools to assess security.

Management of Information Security

5th Edition

Whitman & Mattord

© 2017 | 9781337405713

Equip your students with a management-focused overview of information

security as well as the tools to effectively administer it with Management of Information Security. This text offers an exceptional blend of skills and experiences to administer and manage the more secure computing environments that organizations need. Reflecting the latest developments from the field, it includes updated coverage of NIST, ISO and security governance along with emerging concerns like Ransomware, Cloud Computing and the Internet of Things.

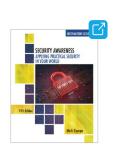
Available with MINDTAP

Security Awareness

Applying Practical Security in Your World 5th Edition

Ciampa

© 2017 | 9781305500372



Principles of Information Security

6th Edition

Whitman & Mattord

© 2018 | 9781337102063



Master the latest technology and developments from the field with the book specifically oriented to the needs of those learning information systems. Taking a managerial approach, this bestseller emphasizes all aspects of information security, rather than just the technical control perspective. Readers gain a broad overview of the entire field of information security and related elements with the detail to ensure understanding. The book highlights terms used in the field and a history of the discipline as readers learn how to manage an information security program. This edition highlights the latest practices with fresh examples that explore the impact of emerging technologies, such as the Internet of Things, Cloud Computing, and DevOps.

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Hands-On Ethical Hacking and **Network Defense**

3rd Edition

Simpson & Antill

© 2017 | 9781285454610



Updated for today's cyber security environment, this timely text helps readers gain the knowledge and skills to protect networks using the tools and techniques of an ethical hacker. After exploring the concept of ethical hacking and explaining its importance, the text provides an in-depth guide to performing security testing against computer networks using current tools and penetration testing methodologies.

Available with MINDTAP

Guide to Computer Forensics and Investigations

6th Edition

Nelson/Phillips/Steuart © 2019 | 9781337568944



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