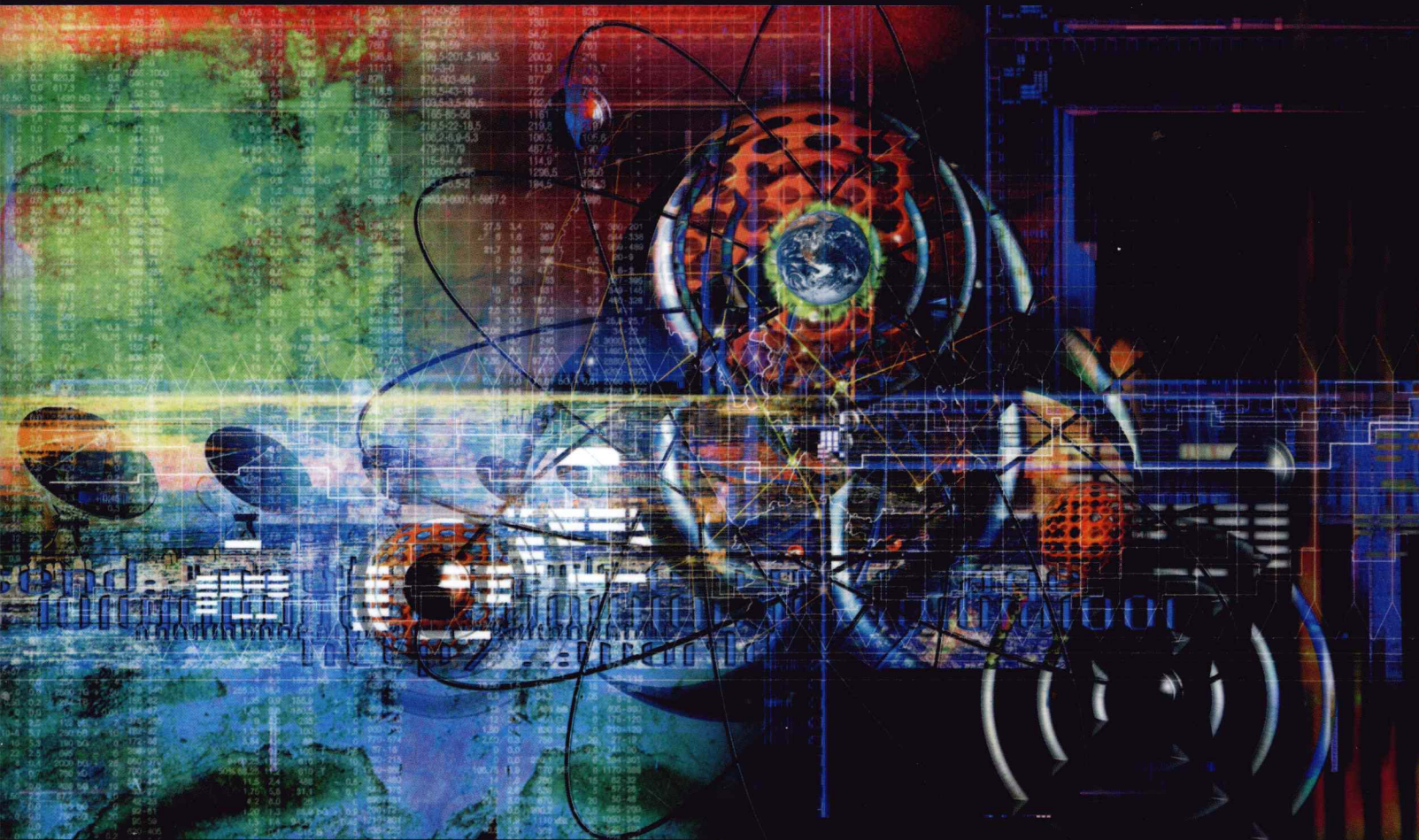


THE O'LEARY SERIES

MICROSOFT®

# Access 2002



Timothy J. O'Leary  
Linda I. O'Leary

INTRODUCTORY



The O'Leary Series

---

# Microsoft® Access 2002

---

Introductory Edition

**Timothy J. O'Leary**

*Arizona State University*

**Linda I. O'Leary**



**Information Technology**



**McGraw-Hill  
Irwin**

Boston Burr Ridge, IL Dubuque, IA Madison, WI New York  
San Francisco St. Louis Bangkok Bogotá Caracas Kuala Lumpur  
Lisbon London Madrid Mexico City Milan Montreal New Delhi  
Santiago Seoul Singapore Sydney Taipei Toronto

# McGraw-Hill Higher Education

A Division of The McGraw-Hill Companies

## MICROSOFT® ACCESS 2002, INTRODUCTORY EDITION

Published by McGraw-Hill/Irwin, an imprint of the McGraw-Hill Companies, Inc. 1221 Avenue of the Americas, New York, NY, 10020. Copyright © 2002 by the McGraw-Hill Companies, Inc. All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of The McGraw-Hill Companies, Inc., including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

Some ancillaries, including electronic and print components, may not be available to customers outside the United States.

**Disclaimer:** This book is designed to help you improve your computer use. However, the author and publisher assume no responsibility whatsoever for the uses made of this material or for decisions based on their use, and make no warranties, either expressed or implied, regarding the contents of this book, its merchantability, or its fitness for any particular purpose.

Neither the publisher nor anyone else who has been involved in the creation, production, or delivery of this product shall be liable for any direct, incidental, or consequential damages, such as, but not limited to, loss of anticipated profits or benefits resulting from its use or from any breach of warranty. Some states do not allow the exclusion or limitation of direct, incidental, or consequential damages, so the above disclaimer may not apply to you. No dealer, company, or person is authorized to alter this disclaimer. Any representation to the contrary will not bind the publisher or author.

This book is printed on acid-free paper.

domestic 5 6 7 8 9 0 QPD/QPD 0 9 8 7 6 5

ISBN 0-07-247244-8

Publisher: *George Werthman*  
Sponsoring editor: *Dan Silverburg*  
Manager, Marketing and Sales: *Paul Murphy*  
Project manager: *Jim Labeots*  
Manager, new book production: *Melonie Salvati*  
Media producer: *David Barrick*  
Freelance design coordinator: *Gino Cieslik*  
Lead supplement coordinator: *Marc Mattson*  
Photo research coordinator: *David A. Tietz*  
Cover & interior design: *Maureen McCutcheon*  
Cover image: *Digitalvision*  
Typeface: *10.5/13 New Aster*  
Compositor: *Rogondino & Associates*  
Printer: *Quebecor World Dubuque Inc.*

Library of Congress Control Number 2001095801



We would like to thank all of the McGraw-Hill/Irwin focus group attendees, reviewers, technical editors, contributors, and Information Technology Advisory Panel participants. Their hard work and detailed feedback has impacted the development of the O'Leary Series. We would also like to thank the many individuals who took the time to send us ideas about how we can make our books the best in the CII market.

Homer Allen	Xisheng Fang	Bill Liu	Julendia Riley
Joan Alexander	Shirley Fedorovich	Jack Locher	Greg Robison
Hashem Anwari	Carole Farley	Mary Jane Lockemy	Melinda K Rose
Tom Ashby	Nancy Fehrle	Maurie Lockley	Elizabeth Roth
Eva Austin	Courtney Ferguson	Patricia Rajski Lyon	Ann Rovetto
Ken Baker	Robert Ferguson	Karen Main	June Scott
Karen Lenette Baker	Coralie Fiegel	Timothy Mason	Krystal Scott
Wayne Ballentine	David Fields	Mindy Mass	Judy Scheeren
Vic Barlow	Neal Finkelstein	William Masser	Peter Simis
Phil Barnhart	Lisa Fischer	Roberta Ann McClure	Lea Ann Simpson
Patti Barr	Ronald Foshee	Philip McCue	Janice Gale Singh
Gigi Beaton	Arlene Franklin	Edna Meeks	Gary Smith
Neal Bengtson	Colin Fraser	James Meeks Jr	Sandy Smith
Sissag Boghikian	Jessica Garrett	Linda Mehlinger	Stephanie Smith
Brian Bothern	Jack Geurin	Dion Melton	Jan Spaar
John Bowers	Robert Grazinski	Mike Michaelson	Candice Spangler
Nancy Breed	Richard Clark Grimes	Ann Miller	Steve St. John
Russell Breslauer	Lisa Gueldenzoph	Mary Lisa Miller	Carol Stams
Anthony Brown	Debra Gross	Katye Mindhardt	Diane Stark
Robert Brown	John Guntor	Shari Monson	Neal Stenlund
Barbara Burley	Jill Haft	Gayle Kastroff Moody	Michael Stewardson
Deborah Buell	Debra Harper	Gaila Moore	DeLana Stokes
Mary Campbell	Virginia Hartman	Vernon Douglas	Charlie Stout
Joyce Cantrell	John Bowman Harvill	Morgan	Sylvia Summers
Carl Carpenter	Shohreh Hashemt	Alex Morgan	Michael Taylor
Glenn Carter	Rachael Heal	Harry Morris	Debbie Tesch
Dennis Chalupa	Liz Helms	Keith Morneau	Margaret Thomas
Gerianne Chapman	Steven Hicks	Ed Mott	Karen Ann Toreson
Cindy Cloud	Dennis Hipp	Karen Munson	John Town
Myrna Ann Comer	Patrick Hogan	Hamid Nemati	Marion Tucker
Maurer	Margaret Huron	Elizabeth A Nettles	Kay Turpin
Bill & Sharon Daley	Renee Hurst	Thuy Nguyen	Gary Tusing
Libby Daugherty	Dale Husbands	Laura Nicholson	Renenva Walker
Ronald Davidson	Jerry Igieheart	Denise Norris	Elizabeth Wanielista
Edward Delean	Bob Irvine	Frank F Ocon	Joy Welby
Kathryn Kay Delk	Glen Johansson	Emmanuel Opara	Mark Westlund
Catherine Dep-Wah	Mary Johnson	Tina Ostrander	Seta Whitby
Davis	Steven Leslie Johnson	Laurie Patterson	Shirley Wilkerson
Donald Dershem	Mali Jones	Woody Pekoske	Paul Wilkinson
Warren Dickson	W.G. Kervahn	Jane Pendrey	Mary Williams
Shirley Dixon	Lori Kielty	Charlene Phillips	Brian Wilson
Allen Dooley	Thelma Zina King	Carolyn Poe	Donna Wilson
John Dunn	Dianne Koch	David Powell	Jennie Yates
George Easton	Gerald Kohers	Cathy Poyner	V. Yen
Elizabeth Warren	Tawny Lamb	Art Preston	Vahid Zardoost
Edmiston	Connie Leathers	Steve Reanies	Janet Zimmer
Judy Ehresman	Earl Lewis	Herbert Rebhun	
Janet Enck	Dominic Ligori	Susan Reedeer	
John Enomoto	David Walter Little	Kathryn Reeves	
Jessie Ann Eubanks	Shade Keys Little	Becky Lynne Reichenau	
David Evans	Becky Littleton	Kathy Richer	

The O'Leary Series

---

# Microsoft® Access 2002

---

Introductory Edition



**InformationTechnology**

# Information Technology at McGraw-Hill/Irwin

At McGraw-Hill Higher Education, we publish instructional materials targeted at the higher education market. In an effort to expand the tools of higher learning, we publish texts, lab manuals, study guides, testing materials, software, and multimedia products.

At McGraw-Hill/Irwin (a division of McGraw-Hill Higher Education), we realize that technology has created and will continue to create new mediums for professors and students to use in managing resources and communicating information to one another. We strive to provide the most flexible and complete teaching and learning tools available as well as offer solutions to the changing world of teaching and learning.

**McGraw-Hill/Irwin is dedicated to providing the tools for today's instructors and students to successfully navigate the world of Information Technology.**

- **Seminar Series** McGraw-Hill/Irwin's Technology Connection seminar series offered across the country every year demonstrates the latest technology products and encourages collaboration among teaching professionals.
- **McGraw-Hill/Osborne** This division of The McGraw-Hill Companies is known for its best-selling Internet titles, *Internet & Web Yellow Pages* and the *Internet Complete Reference*. For more information, visit Osborne at [www.osborne.com](http://www.osborne.com).
- **Digital Solutions** McGraw-Hill/Irwin is committed to publishing digital solutions. Taking your course online doesn't have to be a solitary adventure, nor does it have to be a difficult one. We offer several solutions that will allow you to enjoy all the benefits of having your course material online.
- **Packaging Options** For more information about our discount options, contact your McGraw-Hill/Irwin Sales representative at 1-800-338-3987 or visit our web site at [www.mhhe.com/it](http://www.mhhe.com/it).



APPROVED COURSEWARE

## What does this logo mean?

It means this courseware has been approved by the Microsoft® Office User Specialist Program to be among the finest available for learning *Microsoft Word 2002*, *Microsoft Excel 2002*, *Microsoft Access 2002*, and *Microsoft PowerPoint 2002*. It also means that upon completion of this courseware, you may be prepared to become a Microsoft Office User Specialist.

## What is a Microsoft Office User Specialist?

A Microsoft Office User Specialist is an individual who has certified his or her skills in one or more of the Microsoft Office desktop applications of Microsoft Word, Microsoft Excel, Microsoft PowerPoint®, Microsoft Outlook® or Microsoft Access, or in Microsoft Project. The Microsoft Office User Specialist Program typically offers certification exams at the “Core” and “Expert” skill levels.\* The Microsoft Office User Specialist Program is the only Microsoft approved program in the world for certifying proficiency in Microsoft Office desktop applications and Microsoft Project. This certification can be a valuable asset in any job search or career advancement.

## More Information:

To learn more about becoming a Microsoft Office User Specialist, visit [www.mous.net](http://www.mous.net)

To purchase a Microsoft Office User Specialist certification exam, visit [www.DesktopIQ.com](http://www.DesktopIQ.com)

To learn about other Microsoft Office User Specialist approved courseware from McGraw-Hill/Irwin, visit <http://www.mhhe.com/catalogs/irwin/cit/mous/index.mhtml>

---

\* The availability of Microsoft Office User Specialist certification exams varies by application, application version and language. Visit [www.mous.net](http://www.mous.net) for exam availability.

Microsoft, the Microsoft Office User Specialist Logo, PowerPoint and Outlook are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

# Who benefits from Microsoft, Office User Specialist certification?

## **Employers**

Microsoft Office User Specialist (“MOUS”) certification helps satisfy employers’ needs for qualitative assessments of employees’ skills. Training, coupled with MOUS certification, offers organizations of every size, the ability to enhance productivity and efficiency by enabling their employees to unlock many advanced and laborsaving features in Microsoft Office applications. MOUS certification can ultimately improve the bottom line.

## **Employees**

MOUS certification demonstrates employees’ productivity and competence in Microsoft Office applications, the most popular business applications in the world. Achieving MOUS certification verifies that employees have the confidence and ability to use Microsoft Office applications in meeting and exceeding their work challenges.

## **Instructors**

MOUS certification validates instructors’ knowledge and skill in using Microsoft Office applications. It serves as a valuable credential, demonstrating their potential to teach students these essential applications. The MOUS Authorized Instructor program is also available to those who wish to further demonstrate their instructional capabilities.

## **Students**

MOUS certification distinguishes students from their peers. It demonstrates their efficiency in completing assignments and projects, leaving more time for other studies. Improved confidence toward meeting new challenges and obstacles is yet another benefit. Achieving MOUS certification gives students the marketable skills necessary to set them apart in the competitive job market.

To learn more about MOUS certification, visit [www.mous.net](http://www.mous.net)

To purchase a MOUS certification exam, visit [www.DesktopIQ.com](http://www.DesktopIQ.com)



# Brief Contents

Labs		
	Introduction to Microsoft Office XP	I.1
	Overview To Access 2002	ACO.1
1	Lab 1: Creating a Database	AC1.1
2	Lab 2: Modifying a Table and Creating a Form	AC2.1
3	Lab 3: Analyzing Data and Creating Reports	AC3.1
	Working Together: Linking Access and Word	ACWT1.1
4	Lab 4: Working with Multiple Tables	AC4.1
5	Lab 5: Creating Custom Forms	AC5.1
6	Lab 6: Creating Custom Reports, Macros, and Switchboards	AC6.1
	Working Together 2: Exporting and Creating Data Access Pages	ACWT2.1
	Command Summary	ACCS.1
	Glossary of Key Terms	ACG.1
	Reference 1	ACR1.1
	Reference 2	ACR2.1
	Index	ACI.1

# Acknowledgments

The new edition of The O'Leary Series has been made possible only through the enthusiasm and dedication of a great team of people. Because the team spans the country, literally from coast to coast, we have utilized every means of working together including conference calls, FAX, e-mail, and document collaboration. We have truly tested the team approach and it works!

Leading the team from McGraw-Hill/Irwin are George Werthman, Publisher and Alexandra Arnold, Developmental Editor. Their renewed commitment, direction, and support have infused the team with the excitement of a new project.

The production staff is headed by James Labeots, Project Manager, whose planning and attention to detail has made it possible for us to successfully meet a very challenging schedule. Members of the production team include: Gino Cieslik, Designer; Pat Rogondino, Compositor; Susan Defosset, Copy Editor; Melonie Salvati, Production Supervisor; Marc Mattson, Supplement Coordinator; and David Barrick, Media Producer. We would particularly like to thank Pat and Susan—team members for many past editions—whom we can always depend on to do a great job.

Finally, we are particularly grateful to a small but very dedicated group of people who helped us develop the manuscript. Colleen Hayes, Susan Demar, and Kathy Duggan have helped on the last several editions and continue to provide excellent developmental and technical support. To Steve Willis and Carol Cooper who provide technical expertise, youthful perspective, and enthusiasm, my thanks for helping get the manuscripts out the door and meeting the deadlines.

# Preface

## ● **Introduction**

The 20th century not only brought the dawn of the Information Age, but also rapid changes in information technology. There is no indication that this rapid rate of change will be slowing— it may even be increasing. As we begin the 21st century, computer literacy will undoubtedly become prerequisite for whatever career a student chooses. The goal of the O’Leary Series is to assist students in attaining the necessary skills to efficiently use these applications. Equally important is the goal to provide a foundation for students to readily and easily learn to use future versions of this software. This series does this by providing detailed step-by-step instructions combined with careful selection and presentation of essential concepts.

## ● **About the Authors**

Tim and Linda O’Leary live in the American Southwest and spend much of their time engaging instructors and students in conversation about learning. In fact, they have been talking about learning for more than 25 years. Something in those early conversations convinced them to write a book, to bring their interest in the learning process to the printed page. Today, they are as concerned as ever about learning, about technology, and about the challenges of presenting material in new ways, both in terms of content and the method of delivery.

A powerful and creative team, Tim combines his years of classroom teaching experience with Linda’s background as a consultant and corporate trainer. Tim has taught courses at Stark Technical College in Canton, Ohio, Rochester Institute of Technology in upper New York state, and is currently a professor at Arizona State University in Tempe, Arizona. Tim and Linda have talked to and taught students from ages 8 to 80, all of them with a desire to learn something about computers and the applications that make their lives easier, more interesting, and more productive.

## ● **About the Book**

Times are changing, technology is changing, and this text is changing, too. Do you think the students of today are different from yesterday? There is no doubt about it—they are. On the positive side, it is amazing how much effort students will put toward things they are convinced are relevant to them. Their effort directed at learning application programs and exploring the Web seems at times limitless. On the other hand, students can

often be shortsighted, thinking that learning the skills to use the application is the only objective. The mission of the series is to build upon and extend this interest by not only teaching the specific application skills but by introducing the concepts that are common to all applications, providing students with the confidence, knowledge, and ability to easily learn the next generation of applications.

## ● **What's New in This Edition?**

- **Introduction to Computer Essentials**—A brief introduction to the basics of computer hardware and software (Appears in Office XP, Volume I only).
- **Introduction to Windows 2000**—Two hands-on labs devoted to Windows 2000 basics (Appears in Office XP, Volume I only).
- **Introduction to the WWW: Internet Explorer and E-mail**—Hands-on introductions for using Internet Explorer to browse the WWW and using e-mail (Appears in Office XP, Volume I only).
- **Topic Reorganization**—The text has been reorganized to include main and subtopic heads by grouping related tasks. For example, tasks such as changing fonts and applying character effects appear under the “Formatting” topic head. This results in a slightly more reference-like approach, making it easier for students to refer back to the text to review. This has been done without losing the logical and realistic development of the case.
- **Clarified Marginal Notes**—Marginal notes have been enhanced by more clearly identifying the note content with box heads and the use of different colors.

**Additional Information**—Brief asides with expanded discussion of features.

**Having Trouble?**—Procedural tips advising students of possible problems and how to overcome them.

**Another Method**—Alternative methods of performing a procedure.

- **Larger Screen Figures**—Make it easier to identify elements and read screen content.
- All **Numbered Steps** and bullets appear in left margin space making it easy not to miss a step.
- A **MOUS (Microsoft Office User Specialist) Skills** table, appearing at the end of each lab, contains page references to MOUS skills learned in the lab.
- **Two new References** are included at the end of each text.

**Data File List**—Helps organize all data and solution files.

**MOUS (Microsoft Office User Specialist) Skills**—Links all MOUS objectives to text content and end-of-chapter exercises.



## ● Same Great Features as the Office 2000 Series

- **Relevant Cases**—Four separate running cases demonstrate the features in each application. Topics are of interest to students—At Arizona State University, over 600 students were surveyed to find out what topics are of interest to them.
- **Focus on Concepts**—Each chapter focuses on the concepts behind the application. Students learn the essentials, so they can succeed regardless of the software package they might be using.
- **Steps**—Numbered procedural steps clearly identify each hands-on task needed to complete the step.
- **Screens**—Plentiful screen illustrations illustrate the completion of each numbered step to help students stay on track.
- **Callouts**—Meaningful screen callouts identify the results of the steps as well as reinforce the associated concept.
- **End-of-Chapter Material**

**Terminology**—Questions and exercises test recall of the basic information and terminology in the lab.

- Screen Identification
- Matching
- Multiple Choice

**Concepts**—Questions and exercises review students' understanding of concepts and ability to integrate ideas presented in different parts of the lab.

- Fill-In
- Discussion Questions

**Hands-On Practice Exercises**—Students apply the skills and concepts they learned to solve case-based exercises. Many cases in the practice exercises tie to a running case used in another application lab. This helps to demonstrate the use of the four applications across a common case setting. For example, the Adventure Travel Tours case used in the Word labs is continued in practice exercises in Excel, Access, and PowerPoint.

- Step-by-Step
- On Your Own
- On The Web

- **Rating System**—The 3-star rating system identifies the difficulty level of each practice exercise in the end-of-chapter materials.
- **Working Together Labs**—At the completion of the brief and introductory texts, a final lab demonstrates the integration of the MS Office applications and the WWW.



# Instructor's Guide

We understand that, in today's teaching environment, offering a textbook alone is not sufficient to meet the needs of the many instructors who use our books. To teach effectively, instructors must have a full complement of supplemental resources to assist them in every facet of teaching from preparing for class, to conducting a lecture, to assessing students' comprehension. *The O'Leary Series* offers a fully-integrated supplements package and Web site, as described below.

## ● **Instructor's Resource Kit**

The **Instructor's Resource Kit** contains a computerized Test Bank, an Instructor's Manual, and PowerPoint Presentation Slides. Features of the Instructor's Resource Kit are described below.

- **Instructor's Manual** The Instructor's Manual contains lab objectives, concepts, outlines, lecture notes, and command summaries. Also included are answers to all end-of chapter material, tips for covering difficult materials, additional exercises, and a schedule showing how much time is required to cover text material.
- **Computerized Test Bank** The test bank contains over 1,300 multiple choice, true/false, and discussion questions. Each question will be accompanied by the correct answer, the level of learning difficulty, and corresponding page references. Our flexible Diploma software allows you to easily generate custom exams.
- **PowerPoint Presentation Slides** The presentation slides will include lab objectives, concepts, outlines, text figures, and speaker's notes. Also included are bullets to illustrate key terms and FAQs.

## ● **Online Learning Center/Web Site**

Found at [www.mhhe.com/oleary](http://www.mhhe.com/oleary), this site provides additional learning and instructional tools to enhance the comprehension of the text. The OLC/Web Site is divided into these three areas:

- **Information Center** Contains core information about the text, supplements, and the authors.
- **Instructor Center** Offers instructional materials, downloads, additional exercises, and other relevant links for professors.
- **Student Center** Contains data files, chapter competencies, chapter concepts, self-quizzes, flashcards, projects, animations, additional Web links, and more.

## ● **Skills Assessment**

**SimNet** (Simulated Network Assessment Product) provides a way for you to test students' software skills in a simulated environment. SimNet is available for Microsoft Office 97, Microsoft Office 2000, and Microsoft Office XP. SimNet provides flexibility for you in your course by offering:

- Pre-testing options
- Post-testing options
- Course placement testing
- Diagnostic capabilities to reinforce skills
- Proficiency testing to measure skills
- Web or LAN delivery of tests.
- Computer-based training tutorials (new for Office XP)
- MOUS preparation exams

For more information on skills assessment software, please contact your local sales representative, or visit us at **[www.mhhe.com/it](http://www.mhhe.com/it)**.

## ● **Digital Solutions to Help You Manage Your Course**

**PageOut** is our Course Web Site Development Center that offers a syllabus page, URL, McGraw-Hill Online Learning Center content, online exercises and quizzes, gradebook, discussion board, and an area for student Web pages.

Available free with any McGraw-Hill/Irwin product, PageOut requires no prior knowledge of HTML, no long hours of coding, and a way for course coordinators and professors to provide a full-course Web site. PageOut offers a series of templates—simply fill them with your course information and click on one of 16 designs. The process takes under an hour and leaves you with a professionally designed Web site. We'll even get you started with sample Web sites, or enter your syllabus for you! PageOut is so straightforward and intuitive, it's little wonder why over 12,000 college professors are using it. For more information, visit the PageOut Web site at **[www.pageout.net](http://www.pageout.net)**.

**Online courses** are also available. Online Learning Centers (OLCs) are your perfect solutions for Internet-based content. Simply put, these Centers are "digital cartridges" that contain a book's pedagogy and supplements. As students read the book, they can go online and take self-grading quizzes or work through interactive exercises. These also provide students appropriate access to lecture materials and other key supplements.

Online Learning Centers can be delivered through any of these platforms:

McGraw-Hill Learning Architecture (TopClass)

Blackboard.com

Ecollege.com (formerly Real Education)

WebCT (a product of Universal Learning Technology)

McGraw-Hill has partnerships with WebCT and Blackboard to make it even easier to take your course online. Now you can have McGraw-Hill content delivered through the leading Internet-based learning tool for higher education. At McGraw-Hill, we have the following service agreements with WebCT and Blackboard:

**Instructor Advantage** Instructor Advantage is a special level of service McGraw-Hill offers in conjunction with WebCT designed to help you get up and running with your new course. A team of specialists will be immediately available to ensure everything runs smoothly through the life of your adoption.

**Instructor Advantage Plus** Qualified McGraw-Hill adopters will be eligible for an even higher level of service. A certified WebCT or Blackboard specialist will provide a full day of on-site training for you and your staff. You will then have unlimited e-mail and phone support through the life of your adoption. Please contact your local McGraw-Hill representative for more details.

## ● **Technology Connection Seminar Series**

McGraw-Hill/Irwin's Technology Connection seminar series offered across the country every year demonstrates the latest technology products and encourages collaboration among teaching professionals.

## ● **Computing Essentials**

Available alone, or packaged with the O'Leary Series, *Computing Essentials* offers a unique, visual orientation that gives students a basic understanding of computing concepts. *Computing Essentials* is one of the few books on the market that is written by a professor who still teaches the course every semester and loves it! While combining current topics and technology into a highly illustrated design geared to catch students' interest and motivate them in their learning, this text provides an accurate snapshot of computing today. When the book is bundled with software application lab manuals, students are given a complete representation of the fundamental issues surrounding the personal computing environment.

The text includes the following features:

- **A "Learn By Doing" approach** encourages students to engage in activity that is more interactive than the traditional learning pattern students typically follow in a concepts course. The exercises, explorations, visual

orientation, inclusion of screen shots and numbered steps, and integrated Internet references combine several methods to achieve an interactive learning environment for optimum reinforcement.

- **Making IT Work For You** sections visually demonstrate how technology is used in everyday life. Topics covered include how find a job online and how to protect a computer against viruses. These “gallery” style boxes combine text and art to take students step-by-step through technological processes that are both interesting and useful. As an added bonus, the *CE 2001-2002 Making IT Work Video Series* has been created to complement the topics presented throughout the text.
- **On the Web Explorations** appear throughout the margins of the text and encourage students to go to the Web to visit several informative and established sites in order to learn more about the chapter’s featured topic.
- **On the Web Exercises** present thought-provoking questions that allow students to construct articles and summaries for additional practice on topics relevant to that chapter while utilizing Web resources for further research. These exercises serve as additional reinforcement of the chapter’s pertinent material while also allowing students to gain more familiarity with the Web.
- **A Look to the Future** sections provide insightful information about the future impact of technology and forecasts of how upcoming enhancements in the world of computing will play an important and powerful role in society.
- **Colorful Visual Summaries**, appearing at the end of every chapter, provide dynamic, graphical reviews of the important lessons featured in each chapter for additional reinforcement.
- **End-of-Chapter Review** material follows a three-level format and includes exercises that encourage students to review terms, concepts, and applications of concepts. Through matching, true/false, multiple choice, short answer completion, concept matching, and critical thinking questions, students have multiple review opportunities.

## ● **PowerWeb**

PowerWeb is an exciting new online product available from McGraw-Hill. A nominally priced token grants students access through our Web site to a wealth of resources—all corresponding to computer literacy. Features include an interactive glossary; current events with quizzing, assessment, and measurement options; Web survey; links to related text content; and WWW searching capability via Northern Lights, an academic search engine. Visit the PowerWeb site at **[www.dushkin.com/powerweb](http://www.dushkin.com/powerweb)**.

## ● **Interactive Companion CD-ROM**

This free student CD-ROM, designed for use in class, in the lab, or at home by students and professors alike, includes a collection of interactive tutorial labs on some of the most popular and difficult topics in information tech-