



Kathleen T. McWhorter

College Reading and Study Skills

Fourteenth Edition



College Reading and Study Skills

This page intentionally left blank



College Reading and Study Skills

Fourteenth Edition

KATHLEEN T. McWHORTER
Niagara County Community College

BRETTE McWHORTER SEMBER



Executive Portfolio Manager: Chris Hoag
Portfolio Manager: Matt Summers
Content Producer: Katharine Glynn
Managing Producer: Alex Brown
Content Developer: Janice Wiggins
Portfolio Manager Assistant: Andres Maldonado
Product Marketer: Erin Rush
Field Marketer: Michael Coons
Content Producer Manager: Ken Volcjak

Content Development Manager: Joanne Dauskewicz
Art/Designer: iEnergizer Aptara®, Ltd.
Course Producer: Jessica Kajkowski
Full-Service Project Manager: iEnergizer Aptara®, Ltd.
Compositor: iEnergizer Aptara®, Ltd.
Printer/Binder: LSC Communications, Inc.
Cover Printer: Phoenix Color/Hagerstown
Cover Design: Wing Ngan, Ink design, inc.
Cover Art Direction: Cate Rickard Barr

Acknowledgements of third party content appear within the text or on pages 459–462, which constitutes an extension of this copyright page.

Copyright © 2020, 2017, 2013 by Pearson Education, Inc. 221 River Street, Hoboken, NJ 07030 or its affiliates. All Rights Reserved. Printed in the United States of America. This publication is protected by copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise. For information regarding permissions, request forms, and the appropriate contacts within the Pearson Education Global Rights & Permissions Department, please visit www.pearsoned.com/permissions/.

PEARSON, ALWAYS LEARNING, and MYLAB READING are exclusive trademarks owned by Pearson Education, Inc. or its affiliates in the United States and/or other countries.

Unless otherwise indicated herein, any third-party trademarks that may appear in this work are the property of their respective owners and any references to third-party trademarks, logos, or other trade dress are for demonstrative or descriptive purposes only. Such references are not intended to imply any sponsorship, endorsement, authorization, or promotion of Pearson's products by the owners of such marks, or any relationship between the owner and Pearson Education, Inc., or its affiliates, authors, licensees, or distributors.

Library of Congress Cataloging-in-Publication Data

Names: McWhorter, Kathleen T., author.
Title: College reading and study skills / Kathleen T. McWhorter, Niagara County Community College, Brette McWhorter Sember.
Description: Fourteenth Edition. | New York: Pearson, [2019]
Identifiers: LCCN 2018051785 | ISBN 9780135228067 (Annotated Instructor's Edition) | ISBN 0135228069 (Annotated Instructor's Edition) | ISBN 9780134996295 (Student Edition) | ISBN 0134996291 (Student Edition) | ISBN 9780135227084 (Loose-Leaf Edition) | ISBN 0135227089 (Loose-Leaf Edition)
Subjects: LCSH: Reading (Higher education) | Study skills.
Classification: LCC LB2395.3 .M386 2019 | DDC 428.4071/2—dc23 LC record available at <https://lcn.loc.gov/2018051785>

MyLab Access Code Card
ISBN-10: 0-13-530506-3
ISBN-13: 978-0-13-530506-5

Student Edition
ISBN-10: 0-13-499629-1
ISBN-13: 978-0-13-499629-5

Loose-Leaf Edition
ISBN 10: 0-13-522708-9
ISBN 13: 978-0-13-522708-4



BRIEF CONTENTS

Detailed Contents vii
Preface xiii

Part One: Building a Foundation for Academic Success 2

SUCCESS 1. Read and Learn Online 2
WORKSHOPS 2. Manage Your Electronic Life 6

Chapter 1 **First Steps to Academic Success 10**

Chapter 2 **Taking Notes in Class 42**

Chapter 3 **Communicating in the Classroom 62**

Part Two: Using College Textbooks 76

SUCCESS 3. Work with New Course Formats:
WORKSHOPS Online, Hybrid, and Flipped Courses 76
4. Strengthen Your Concentration 80

Chapter 4 **Identify and Organize What to Learn 84**

Chapter 5 **Learning and Memory 125**

Part Three: Essential Reading Skills 144

SUCCESS 5. Improve Your Reading Rate and
WORKSHOPS Flexibility 144

Chapter 6 **Active Reading Strategies 147**

Chapter 7 **Expanding Your Vocabulary 178**

Chapter 8 **Understanding Paragraphs 206**

Chapter 9 **Following Thought Patterns 232**

Part Four: Thinking Critically as You Read 262

SUCCESS 6. Build Your Information Literacy
WORKSHOP and Recognize Fake News 262

Chapter 10 **Evaluating the Author's Message 266**

Chapter 11 **Evaluating Authors' Techniques 299**

Part Five: Strategies for Academic Achievement 316

SUCCESS 7. Think Critically About College
WORKSHOPS Course Content 316
8. Manage Stress 320

Chapter 12 **Reading and Thinking Critically in Academic Disciplines 324**

Chapter 13 **Preparing for Exams 347**

Chapter 14 **Taking Exams 366**

Part Six: Thematic Readings 388

Theme A **Non-Traditional Additions 389**

Theme B **Discrimination 405**

Theme C **Controversies in Science 421**

Part Seven: Sample Textbook Chapter: Textbook Reading and Writing 436

Text Credits 459

Index 463

This page intentionally left blank

DETAILED CONTENTS

Preface xiii

Part One: Building a Foundation for Academic Success 2

SUCCESS	1. Read and Learn Online 2
WORKSHOPS	2. Manage Your Electronic Life 6

Chapter 1 **First Steps to Academic Success 10**

Establishing Goals and Managing Your Valuable Time	11
Analyzing Your Learning Style	20
Understanding Your Instructors' Teaching Styles	26
Meeting Your Instructors' Expectations	28
Developing Active Learning Strategies	31
Thinking Critically	33
■ Using College Textbooks: Keeping Track of and Analyzing Reading Assignments	37
Self-Test Summary	38
Applying Your Skills: Using the Sample Textbook Chapter	39 • Analyzing a Study Situation 40
• Working on Collaborative Projects	40
Quick Quiz	41

Chapter 2 **Taking Notes in Class 42**

Sharpening Your Listening Skills	43
Preparing for a Class Lecture	43
How to Take Lecture Notes	44
How to Edit Your Notes	51
How to Study Your Notes	54
■ Using College Textbooks: Taking Notes on Textbook Readings	57
Self-Test Summary	59
Applying Your Skills: Using the Sample Textbook Chapter	60 • Analyzing a Study Situation 60
• Working on Collaborative Projects	60
Quick Quiz	61

Chapter 3 **Communicating in the Classroom 62**

Listening Critically	63
Asking and Answering Questions	64
Participating in Class Discussions	65
Working on Collaborative Activities	67
Making Oral Presentations	68
Communicating with Your Professors	70
■ Using College Textbooks: Preparing for Class Discussions	71
Self-Test Summary	72
Applying Your Skills: Using the Sample Textbook Chapter	73 • Analyzing a Study Situation 73
• Working on Collaborative Projects	74
Quick Quiz	75

Part Two: Using College Textbooks 76

SUCCESS	3. Work with New Course Formats: Online, Hybrid, and Flipped Courses	76
WORKSHOPS	4. Strengthen Your Concentration	80

Chapter 4 Identify and Organize What to Learn 84

Paraphrasing	85
Highlighting	88
Marking a Textbook	95
Organizing by Outlining	98
Summarizing: Condensing Ideas	102
Mapping: A Visual Means of Organizing Ideas	109
Avoiding Plagiarism	116
■ Using College Textbooks: Knowing What Is Important and Identifying Supporting Details 118	
Self-Test Summary	122
Applying Your Skills: Using the Sample Textbook Chapter	123 • Analyzing a Study Situation 123
• Working on Collaborative Projects	123
Quick Quiz	124

Chapter 5 Learning and Memory 125

Forgetting	126
An Overview of the Learning and Memory Process	127
Learning Strategies	130
Review	135
■ Using College Textbooks: Deciding What to Learn 138	
Self-Test Summary	140
Applying Your Skills: Using the Sample Textbook Chapter	140 • Analyzing a Study Situation 140
• Working on Collaborative Projects	141
Quick Quiz	142

Part Three: Essential Reading Skills 144

SUCCESS	5. Improve Your Reading Rate and Flexibility	144
WORKSHOP		

Chapter 6 Active Reading Strategies 147

Previewing and Predicting Before Reading	148
Discovering What You Already Know	155
Defining Your Purposes for Reading	155
Checking Your Comprehension as You Read	158
Strengthening Your Comprehension of Text	161
Reviewing After Reading	163
Strengthening Your Comprehension of Visual Aids	164
A Classic System for Active Reading: SQ3R	168
■ Using College Textbooks: Reading Difficult Textbooks 173	
Self-Test Summary	174
Applying Your Skills: Using the Sample Textbook Chapter	175 • Analyzing a Study Situation 175
• Working on Collaborative Projects	176
Quick Quiz	177

Chapter 7 Expanding Your Vocabulary 178

General Approaches to Vocabulary Expansion 179

A Strategy for Learning Unfamiliar Words 181

Using Context Clues 181

Analyzing Word Parts 188

Using Reference Sources 195

Learning Specialized Terminology 198

Systems for Learning Vocabulary 200

■ Using College Textbooks: Locating Word Meanings 201

Self-Test Summary 203

Applying Your Skills: Using the Sample Textbook Chapter 204 • Analyzing a Study Situation 204

• Working on Collaborative Projects 204

Quick Quiz 205

Chapter 8 Understanding Paragraphs 206

Three Essential Elements of a Paragraph 207

How to Identify the Topic 208

How to Find the Main Idea 212

Where to Find the Topic Sentence 212

Recognizing Details 216

Transitions 222

Unstated Main Ideas 223

■ Using College Textbooks: Locating Main Ideas 226

Self-Test Summary 228

Applying Your Skills: Using the Sample Textbook Chapter 229 • Discussing the Chapter 229

• Analyzing a Study Situation 230 • Working on Collaborative Projects 230

Quick Quiz 231

Chapter 9 Following Thought Patterns 232

The Organization of Textbook Chapters 233

Types of Supporting Information 235

Recognizing Organizational Patterns 240

■ Using College Textbooks: Identifying Patterns 257

Self-Test Summary 259

Applying Your Skills: Using the Sample Textbook Chapter 260 • Analyzing a Study Situation 260

• Working on Collaborative Projects 260

Quick Quiz 261

Part Four: Thinking Critically as You Read 262**SUCCESS 6. Build Your Information Literacy and Recognize Fake News 262**
WORKSHOP**Chapter 10 Evaluating the Author's Message 266**

Making Inferences as You Read 267

Evaluating Author and Source Credibility 270

Evaluating Internet Sources 272

Distinguishing Between Fact and Opinion 274

Identifying the Author's Purpose 276

Being Alert for Bias 278

Analyzing the Author's Tone 280

Analyzing Arguments 283

Evaluating Data and Evidence 285
Thinking Critically about Graphics 292

■ **Using College Textbooks: Critical Thinking Questions 294**

Self-Test Summary 296
Applying Your Skills: Using the Sample Textbook Chapter 297 • Analyzing a Study Situation 297
• Working on Collaborative Projects 297
Quick Quiz 298

Chapter 11 **Evaluating Authors' Techniques 299**

Paying Attention to Connotative Language 300
Examining Figurative Language 301
Watching for Missing and Misleading Information 303
Being Alert for Generalizations 305
Examining the Author's Assumptions 307
Watching for Manipulative Language 308

■ **Using College Textbooks: Using Critical Thinking Features 312**

Self-Test Summary 313
Applying Your Skills: Using the Sample Textbook Chapter 314 • Analyzing a Study Situation 314
• Working on Collaborative Projects 314
Quick Quiz 315

Part Five: Strategies for Academic Achievement 316

SUCCESS 7. Think Critically About College Course Content 316
WORKSHOPS 8. Manage Stress 320

Chapter 12 **Reading and Thinking Critically in Academic Disciplines 324**

Expanding Your Critical Thinking Abilities in Academic Disciplines 325
What Are the Social Sciences? 331
What Are the Life and Physical Sciences? 333
What Is Mathematics? 336
What Do Literature and the Humanities Study? 338
What Are the Career Fields? 340

■ **Using College Textbooks: Expanding Your Knowledge to Other Disciplines 342**

Self-Test Summary 344
Applying Your Skills: Using the Sample Textbook Chapter 345 • Analyzing a Study Situation 345
• Working on Collaborative Projects 345
Quick Quiz 346

Chapter 13 **Preparing for Exams 347**

Organizing Your Study and Review 348
Identifying What to Study 349
Analyzing and Synthesizing Information 351
Reviewing for Objective and Essay Exams 353
Preparing for Self-Testing 356

■ **Using College Textbooks: Using In-Chapter Self-Test Questions 360**

Self-Test Summary 362
Applying Your Skills: Using the Sample Textbook Chapter 363 • Analyzing a Study Situation 363
• Working on Collaborative Projects 364
Quick Quiz 365

Chapter 14 Taking Exams 366

General Suggestions for Taking Exams 367
 Hints for Taking Objective Exams 369
 Hints for Taking Standardized Tests 374
 Hints for Taking Essay Exams 375
 Controlling Test Anxiety 381

■ Using College Textbooks: Using Headings to Create Practice Tests 383

Self-Test Summary 384
 Applying Your Skills: Using the Sample Textbook Chapter 385 • Analyzing a Study Situation 385
 • Working on Collaborative Projects 386
 Quick Quiz 387

Part Six: Thematic Readings 388

THEME A	Non-Traditional Addictions 389 A-1 The Netflix Addiction: Why Our Brains Keep Telling Us to Press Play 389 A-2 Textbook Excerpt: Addictive Consumption 394 A-3 A Food Addiction Has Defined My Entire Life. And It Is Slowly Killing Me 399 Making Connections 403 • What Do You Think? 403
THEME B	Discrimination 405 B-1 Years After 9/11, Anti-Muslim Bigotry Is Worse Than Ever 405 B-2 Textbook Excerpt: Racial Profiling and Biased Policing 409 B-3 Singled Out: Are Unmarried People Discriminated Against? 415 Making Connections 420 • What Do You Think? 420
THEME C	Controversies in Science 421 C-1 Shades of Grey in the Ethics of Designer Babies 421 C-2 The Ocean's Plastic Problem 425 C-3 Textbook Excerpt: Some Possible Consequences of Global Warming 429 Making Connections 435 • What Do You Think? 435

Part Seven: Sample Textbook Chapter: Textbook Reading and Writing 436

	Preparing for the Lecture 436 Reading the Assignment 438 Sociology Chapter Excerpt: Race and Ethnicity 439 Reviewing the Reading Assignment 451 Attending the Lecture and Participating in Class 451 Writing About the Reading 452 Taking Quizzes 453 Taking the Exam 456
--	--

Text Credits 459
 Index 463

This page intentionally left blank



PREFACE

Across thirteen editions, *College Reading and Study Skills* has demonstrated that reading and study skills are inseparable. A student must develop skills in each area in order to handle college work successfully. With this goal in mind, I have tried to provide complete coverage of both reading and study skills throughout and to show their relationship and interdependency. In doing so, my emphasis has been on direct instruction. My central aim is to teach reading and study skills through a how-to approach.

NEW TO THE FOURTEENTH EDITION

The new edition of *College Reading and Study Skills* features a stronger emphasis on discipline-specific college reading, expanded coverage of critical thinking, and revised and expanded coverage of the digital age as it affects reading and study. The thematic reader (Part Six) features two new themes—the first on non-traditional addictions and the second on discrimination.

NEW CHAPTER ON DISCIPLINE-SPECIFIC READING SKILLS. Chapter 12, “Reading and Thinking Critically in Academic Disciplines,” focuses on five academic disciplines: social sciences and history, life and physical sciences, mathematics, literature and the humanities, and career fields. The chapter begins by examining four types of critical thinking skills: decision-making, problem-solving, creative thinking, and scientific thinking, skills important to many academic disciplines. Because students need to learn to adapt their reading skills to suit the nature of each discipline, the chapter identifies characteristics unique to each discipline and shows students how to adapt their reading skills to accommodate these unique characteristics. Critical thinking skills are also presented for each discipline.

ENHANCED EMPHASIS ON CRITICAL THINKING SKILLS. Critical thinking skills are now featured in every chapter. New “Thinking Critically” boxes have been added that demonstrate the relevance of critical thinking skills to chapter content. For example, in Chapter 4, students are encouraged to evaluate the effectiveness of their highlighting; in Chapter 6 they are encouraged to sharpen their critical thinking skills when previewing. Chapter 8 shows students the techniques used by writers to signal important information in a paragraph.

NEW COVERAGE OF DIGITAL READING SKILLS. Increasingly more reading, both academic and everyday, is done digitally; digital reading requires both adaptation of existing skills and development of new ones. Success Workshop 1, “Read and Learn Online,” explores the differences between print and digital reading. Because digital reading requires new and different skills, the workshop offers strategies for focusing and concentrating while reading online and asks students to brainstorm techniques for overcoming numerous online challenges.

NEW COVERAGE OF FAKE NEWS. Fake news, false information that is deliberately and intentionally presented to mislead readers or listeners, is a current topic of discussion and debate in many academic communities and in social media. Facebook, Twitter, and Google have all addressed this issue by suspending the accounts of thousands of fake news sites. As such, it is important that students be aware of its risk and dangers. Success Workshop 6, “Build Your Information Literacy and Recognize Fake News,” defines fake news, offers suggestions for evaluating information sources, and presents strategies for identifying fake news.

NEW THEMATIC READINGS. Part Six of the book contains nine readings, grouped according to three themes. Two themes have been replaced with more current and engaging readings. Theme A considers non-traditional addictions and includes readings on Netflix addiction, addictive consumption, and food addiction. Theme B addresses discrimination: anti-Muslim bigotry, racial profiling and biased policing, and discrimination against people who are single. Theme C, Controversies in Science, has been retained. It considers the following topics: designer babies, the massive concentration of plastic in oceans, and consequences of global warming.

NEW CHAPTER REORGANIZATION. Chapter 1 has been reorganized to include new coverage of digital study aids such as electronic time management tools, notetaking organizers, and self-test flash card systems.

CONTENT OVERVIEW

College Reading and Study Skills, Fourteenth Edition, presents the basic strategies for college success, including time management, analysis of learning style, active reading, and note taking. The text offers strategies for strengthening literal and critical comprehension, as well as improving vocabulary skills. Students also discover methods for reading and learning from textbook assignments, including outlining and summarizing, and for taking exams. The reading and study skills I have chosen to present are those most vital to students' success in college. Each unit teaches skills that are immediately usable—all have clear and direct application to students' course work.

Because I believe that critical thinking and reading skills are essential to college success, these skills are emphasized in the text. I introduce students to critical thinking skills by explaining Bloom's hierarchy of cognitive skills early and then showing their academic application throughout the text. *College Reading and Study Skills* offers direct skill instruction in critical reading and includes key topics such as making inferences, asking critical questions, analyzing arguments, and evaluating Internet sources.

The units of the text are interchangeable, which enables the instructor to adapt the material to a variety of instructional sequences.

SUCCESS WORKSHOPS. Appearing at the beginning of Parts One through Five, the Success Workshops use a fun, lively, and accessible format to provide students with skills that will directly and immediately contribute to their college success. Topics include reading and learning online; managing one's electronic life; working with new course formats: online, hybrid, and flipped courses; strengthening concentration to improve reading rate and flexibility; building information literacy and recognizing fake news; thinking critically about course content; and managing stress.

PART ONE: BUILDING A FOUNDATION FOR ACADEMIC SUCCESS. This section provides an introduction to the college experience and presents skills, habits, and attitudes that are essential to academic success. In Chapter 1, students learn to assess their learning style and develop active learning strategies. Chapters 2 and 3 focus on classroom skills: note taking and classroom communication.

PART TWO: USING COLLEGE TEXTBOOKS. The chapters in this section teach students to read and learn from college textbook assignments. Chapter 4 teaches students how to identify and organize what they learn using paraphrasing, highlighting, marking, outlining, summarizing, and mapping. Chapter 5 discusses the learning and memory processes and the principles on which many of the skills presented throughout the text are based.

PART THREE: ESSENTIAL READING SKILLS. This section focuses on the development of reading skills for both textbooks and other common academic reading assignments. In Chapter 6, students learn active reading strategies for before, during, and after

reading. Students are shown methods of learning specialized vocabulary and discover systems for vocabulary learning in Chapter 7. Chapter 8 focuses on paragraph reading skills. Chapter 9 focuses on recognizing thought patterns.

PART FOUR: THINKING CRITICALLY AS YOU READ. Critical thinking is the focus of the two chapters in this section. Chapter 10 emphasizes evaluation of an author's message. It includes making inferences, distinguishing between fact and opinion, recognizing tone, evaluating data and evidence, and analyzing arguments. Chapter 11 focuses on evaluating an author's techniques: connotative and figurative language, missing information, generalizations, assumptions, and manipulative language.

PART FIVE: STRATEGIES FOR ACADEMIC ACHIEVEMENT. The purpose of this section is to prepare students for reading, assignments, and exams in the various academic disciplines. Chapter 12 covers five academic disciplines: social sciences and history, life and physical sciences, mathematics, literature and the humanities, and career fields. The chapter first examines four types of critical thinking skills important to many academic disciplines: decision-making, problem-solving, creative thinking, and scientific thinking skills. The chapter then examines each of the academic disciplines in-depth and presents material on how to apply critical thinking skills. In Chapters 13 and 14, students learn specific strategies for preparing for and taking objective tests, standardized tests, and essay exams, as well as for controlling test anxiety.

PART SIX: THEMATIC READINGS. This section contains nine readings, grouped according to three themes: non-traditional addictions, discrimination, and controversies in science. These readings, which represent the kind of texts that may be assigned in academic courses, provide students with an opportunity to apply skills taught throughout the text.

PART SEVEN: SAMPLE TEXTBOOK CHAPTER: TEXTBOOK READING AND WRITING. Finally, a textbook chapter selection taken from an introduction to sociology college text, titled "Race and Ethnicity," allows students to work with actual textbook material to apply skills taught throughout the text. The chapter is representative of college textbooks, of the learning aids they contain, and of classroom activities built around chapter reading assignments.

SPECIAL FEATURES

The following features enhance the text's effectiveness and directly contribute to students' success:

- **Learning Style.** The text emphasizes individual student learning styles and encourages students to adapt their reading and study techniques to suit their learning characteristics, as well as the characteristics of the learning task.
- **Reading as a Process.** This text emphasizes reading as a cognitive process. Applying the findings from the research areas of metacognition and prose structure analysis, students are encouraged to approach reading as an active mental process of selecting, processing, and organizing information to be learned.
- **Metacognition.** Students are encouraged to establish their concentration, activate prior knowledge, define their purposes, and select appropriate reading strategies prior to reading. They are also shown how to strengthen their comprehension, monitor that comprehension, select what to learn, and organize information. They learn to assess the effectiveness of their learning, revise and modify their learning strategies as needed, and apply and integrate course content.
- **Skill Application.** Students learn to problem-solve and explore applications through case studies of academic situations included at the end of each chapter. The exercises are labeled "Applying Your Skills." "Using the Sample Chapter" questions

have students apply skills from the book to the sample textbook chapter in Part Seven. “Analyzing a Study Situation” questions present students with mini-cases and ask them how to best approach an academic challenge. Finally, “Working on Collaborative Projects” exercises provide opportunities for group work.

- **Learning Experiments/Learning Principles.** Each chapter begins with an interactive learning experiment designed to engage students immediately in an activity that demonstrates a principle of learning that will help students learn the chapter content. The student begins the chapter by doing, not simply by beginning to read.
- **Chapter Learning Goals.** Each chapter opens with chapter learning objectives that correspond to the major headings in the chapter.
- **Interactive Assignments.** The Success Workshops, the Learning Experiments at the beginning of each chapter, and the Using College Textbooks feature engage students and function as interactive learning opportunities.
- **Writing to Learn.** The text emphasizes writing as a means of learning. Writing-to-learn strategies include paraphrasing, self-testing, outlining, summarizing, and mapping.
- **Realistic Reading Assignments.** Exercises often include excerpts from college texts across a wide range of disciplines, providing realistic examples of college textbook reading. Furthermore, “Using College Textbooks” sections guide students in making the most of their textbooks.
- **Thematic Readings.** Nine readings, grouped according to three themes, are contained in Part Six. These readings provide realistic materials on which to apply skills taught in the text. They also provide students with an essential link between in-chapter practice exercises and independent application of new techniques in their own textbooks, as well as valuable practice in synthesizing and evaluating ideas.
- **Self-Test Chapter Summaries.** Linked to the chapter’s learning goals, the chapter summaries use an interactive question–answer format that encourages students to become more active learners.
- **Quick Quizzes.** A multiple-choice quick quiz is included at the end of each chapter. Each quiz assesses mastery of chapter content, provides students with feedback on their learning, and prepares students for further evaluation conducted by their instructor.
- **Visual Appeal.** The text recognizes that many students are visual learners and presents material visually, using photographs, maps, charts, tables, and diagrams.

THE TEACHING AND LEARNING PACKAGE

Reading

Reach every student by pairing this text with MyLab Reading

MyLab™ is the teaching and learning platform that empowers you to reach *every* student. By combining trusted content with digital tools and a flexible platform, MyLab personalizes the learning experience and improves results for each student. When students enter your developmental reading course with varying skill levels, MyLab can help you identify which students need extra support and provide them targeted practice and instruction outside of class. Learn more at www.pearson.com/mylab/reading.

- **Deliver trusted content:** You deserve teaching materials that meet your own high standards for your course. That’s why we partner with highly respected authors to develop interactive content and course-specific resources that you can trust—and that keep your students engaged.
- **Empower each learner:** Each student learns at a different pace. Personalized learning pinpoints the precise areas where each student needs practice, giving all students the support they need—when and where they need it—to be successful.
 - **A Personalized Learning Experience.** MyLab Reading diagnoses students’ strengths and weaknesses to provide targeted practice and multimodal activities to help them improve over time.

- MyLab Reading uses **The Lexile® Framework for Reading** to diagnose a student's reading ability. After an initial Locator Test, students receive readings and practice at their estimated reading level. Throughout the course, periodic diagnostic tests incrementally adjust their level with increasing precision.
- **Teach your course your way:** Your course is unique. So whether you'd like to build your own assignments, teach multiple sections, or set prerequisites, MyLab gives you the flexibility to easily create *your* course to fit *your* needs.
- **Improve student results:** When you teach with MyLab, student performance often improves. That's why instructors have chosen MyLab for over 15 years, touching the lives of over 50 million students.

Text-Specific Ancillary Materials

- **Annotated Instructor's Edition.** This supplement is an exact replica of the student text with answers provided. ISBN: 0-13-522806-9/978-0-13-522806-7
- **Instructor's Manual.** This supplement contains teaching suggestions for each chapter along with numerous tests formatted for easy distribution and scoring. It includes a complete answer key, strategies for approaching individual chapters, a set of overhead projection materials, and suggestions for integrating the many Pearson ancillaries. Online only. ISBN: 0-13-522705-4/978-0-13-522705-3
- **Test Bank.** This supplement includes content-based chapter quizzes and mastery tests to enable students to apply skills taught in every chapter. Online only. ISBN: 0-13-522704-6/978-0-13-522704-6
- **Pearson MyTest.** This supplement is created from the Test Bank and is a powerful assessment generation program that helps instructors easily create and print quizzes, study guides, and exams. Select Pearson's questions and supplement them with your own questions. Available at www.pearsonmytest.com. ISBN: 0-13-522710-0/978-0-13-522710-7.
- **PowerPoint Presentations.** This supplement contains a presentation for each chapter structured around the chapter learning objectives. You can use these presentations as is or edit them to suit your lecturing style. Available for download from the Instructor Resource Center. ISBN: 0-13-522709-7/978-0-13-522709-1
- **Answer Key.** The Answer Key contains the solutions to the exercises in the student edition of the text. Available for download from the Instructor Resource Center. ISBN: 0-13-522711-9/978-0-13-522711-4

ACKNOWLEDGMENTS

In preparing this edition, I appreciate the excellent ideas, suggestions, and advice provided by reviewers: G. Jay Christensen, California State University, Northridge; Cynthia Galvan, Milwaukee Area Technical College; Janice Johnson, Missouri State University – West Plains; Stacey Kartub, Washtenaw Community College; Kristine Kotecki, Hawaii Community College; Dina Levitre, Community College of Rhode Island; Elizabeth O'Scanlon, Santa Barbara City College; Kathy Petroff, St. Louis Community College – Forest Park; Alexis Shuler, The University of Akron; Sara Shutt, J. Sargeant Reynolds Community College; Susan Silva, El Paso Community College; Leigh Smith, Lamar Institute of Technology; Jeff Vogel, Saddleback College; Elizabeth Walker, Labette Community College; and Constance Yates, Missouri State University.

The editorial staff at Ohlinger Studios deserve special recognition and thanks for the guidance, support, and direction they have provided. Additionally, I thank Joanne Daukiewicz, Managing Editor, Erin Bosco, Program Manager, and Mickey Mankus, Project Manager for managing the production of the book. I wish to thank Janice Wiggins, my development editor, for her valuable advice, Phoebe Mathews for her assistance in copyediting the manuscript, and Christine Hoag, VP and editorial director, English, at Pearson for her support of the revision.

KATHLEEN T. MCWHORTER

This page intentionally left blank

College Reading and Study Skills



READ AND LEARN ONLINE

Did You Know?

- More than one quarter of all college students (about 28 percent) are taking at least one online course.¹
- In a recent survey, more than half of the college students surveyed (55 percent) reported that at least one of their instructors required an electronic textbook.²

Digital reading is becoming increasingly important because we live in a digital world. We read not only e-books, but also text on smartphones, tablets, and other e-readers (such as the Kindle). College courses, too, often require digital reading for research, online courses, and document sharing.

HOW DOES READING ON A SCREEN DIFFER FROM READING PRINTED MATERIALS?

Reading digital material and reading print material differ in numerous ways. To read and learn effectively, you need to be aware of their differences and adapt your skills accordingly. The layout of words, digital features, and your progression through the text create a unique reading and learning environment.

- **Print text is *linear*; readers proceed in one direction, from beginning to end.** Digital text, on the other hand, is *multi-directional*; readers can follow hyperlinks, research numerous sources, and then return to the original text.
- **Because readers move through digital text by scrolling, they tend to read faster.** They also tend to alternate between reading and skimming. This skimming process leads to less detailed, less careful reading.
- **Reading digital text is more distracting.** Varying colors, print sizes, numerous graphics, shifting screens, and hyperlinks tend to draw readers' attention away from core content.
- **Digital reading makes multitasking more tempting.** It is easy to skip over to a social media site while reading, for example. In fact, one research study reported that 95% of students report multitasking while reading digital content, while only 1 percent of students reported the same while reading print text.

¹ https://onlinelearningconsortium.org/news_item/report-one-four-students-enrolled-online-courses/

² <https://er.educause.edu/articles/2017/10/exploring-the-use-of-e-textbooks-in-higher-education-a-multiyear-study>

- **Digital readers have to make more decisions about how to proceed on the screen (whether to follow or ignore hyperlinks, read graphics, and so on) than print readers do.** These decision-making tasks may divert concentration from the ideas presented in the material.

HOW SHOULD YOU FOCUS AND CONCENTRATE WHILE READING ONLINE?

To stay focused when reading in an online environment, use the following strategies.

1. **Recognize that reading online requires as much time and effort as reading print materials, perhaps even more.** At times, you may need to slow down, just as you do when reading challenging print materials.
2. **Evaluate your sources carefully.** Not everything that appears online is accurate and reliable. Also be sure to evaluate any hyperlinks you follow.
3. **Make conscious decisions about how and what to read.** First consider your purpose, and choose strategies accordingly. Do you need an overview of the material or in-depth understanding, for example? Read and reread to suit your purpose. Decide whether to read or mentally filter out visuals, graphics, inserts, and other distractions. Remember, these digital “add-ons” may shift your focus to less-important materials.
4. **Make deliberate decisions, particularly about hyperlinks.** For example, will you follow links on your first reading, or will you read the material through once and then after completing a first reading, follow links that seem appropriate and necessary? Under some circumstances, you will not need to follow any of the links.
5. **Remember that, as with print materials, reading is not learning.** Choose appropriate during and after reading strategies, such as paraphrasing, highlighting and annotating (if the technology supports it), outlining, summarizing, and mapping. (For more information on these techniques, see Chapter 4.)
6. **Concentrate on basic comprehension; read for meaning.** Use the same strategies you use for print materials—preview, read for meaning, and review after reading. Research substantiates that stronger basic comprehension occurs when reading print materials than when reading digital text, so additional focus and effort may be required. You may need to stop, every so often, to review and test your recall and comprehension.
7. **Think critically.** It is easy to glide through digital content without analyzing and evaluating the ideas presented. Be sure to subject digital content to close and careful scrutiny and analysis.

HOW CAN YOU MAXIMIZE YOUR COMPREHENSION OF ONLINE MATERIALS?

For each of the challenges of online reading listed below, indicate one or two strategies you will follow to increase your focus, comprehension, and/or recall.

Online Reading Challenge	Your Solution(s)
A large number of hyperlinks embedded in paragraphs	
“Click bait” that encourages you to click through to “sponsored sites”	
The tendency to skim or read quickly	
Electronic distractions, such as social media	
Eye strain (too much time staring at a screen)	
Inability to annotate or highlight electronic materials (for example, on a website)	

WHAT ADDITIONAL ONLINE RESOURCES ARE AVAILABLE?

When reading in a digital environment, you need to separate the useful materials from the distractions. As you read online, you may encounter the following learning aids. Make the most of them; they exist to help you learn better.

1. **Online quizzes.** Many textbooks include online quizzes and other assessment materials that help you test your comprehension. Often, these questions offer feedback for correct and incorrect answers.
2. **Electronic flash cards.** You may find electronic flash cards that help you learn new vocabulary. Some flash cards (in disciplines such as biology and psychology) include images, not just words, to aid you in learning key terms.
3. **Research citations.** Often, academic materials include hyperlinks to source materials that present original ideas or research. By following these links at an appropriate time, you can deepen your knowledge of a particular topic.
4. **Helpful links.** Many online materials contain a list of helpful links or resources for those who are seeking more information. Before you read the main assignment, preview the list of helpful resources, and keep them in mind as you read.
5. **Class message boards.** Many online courses contain message boards and other tools for collaborative learning. Determine how you learn best and use the resources that are most helpful.

HOW CAN YOU PRACTICE YOUR DIGITAL READING SKILLS?

Conduct an Internet search for an article on digital reading. First, skim the article to get a general idea of the content of the article. Next, read the article, making a deliberate effort to comprehend the meaning of the text. Using either annotation (using the comment feature in Word) or highlighting, indicate the main ideas of the article. After you have thoroughly read and marked the article, write a paragraph summary that highlights the main ideas.

DIGITAL!

Decide what you need to learn.

Improve your comprehension by staying focused on core material.

Get used to reading and learning in a digital environment.

Increase your knowledge by using electronic tools to help you learn better.

Think critically.

Analyze online sources to determine their credibility and validity.

Learn essential material before clicking on hyperlinks.



MANAGE YOUR ELECTRONIC LIFE

Did You Know?

- One study reports that on the average college women spend 10 hours a day on their cell phones, while college men spend almost 8 hours.¹
- Online courses are growing: 6.7 million students reported taking at least one online class in 2012.² The top three programs of study in online learning are business, health care, and computer science.³

The revolution has occurred. Technology is all around us, and it has become a powerful tool for learning. Computers, laptops, tablets, and smartphones offer convenient ways of learning, reviewing, collaborating, and studying. Learning to make these fun tools work *for you* instead of *against you* will be a key to your success in college and beyond.

IS TECHNOLOGY AFFECTING YOUR ABILITY TO CONCENTRATE?

Is technology helping you manage your life, or is it a source of distraction? Analyze the impact of technology on your daily life by answering the following questions. You will get a sense of the type and number of electronic distractions in your life and how they affect your ability to focus.

1. How many text messages do you send and receive per day? _____
How many of these are “important”? _____ Do you stop what you are doing to check your cell phone the second a text message arrives? _____ Have you ever texted while driving? _____
2. How many e-mails do you send and receive per day? _____ How many of these are valuable in terms of communicating important information? _____ How many are purely for entertainment or socializing? _____ How much time do you spend each day on e-mail unrelated to your college work or your job? _____
3. How many calls do you receive on your cell phone each day? _____ Do you leave your cell phone on all the time? _____ Do you answer it every time it rings, even when you’re in class or studying? _____ Do you ever use your cell phone as a way to procrastinate? _____ How often do you play games on your cell phone or use your phone to entertain yourself, procrastinate, or pass the time? _____

¹ <https://www.baylor.edu/mediacommunications/news.php?action=story&story.html>

² Elaine Allen & Jeff Seaman. Changing Course: Ten Years of Tracking Online Education in the United States. Babson Survey Research Group, 2013. <http://files.eric.ed.gov/fulltext/ED541571.pdf>

³ <http://www.learninghouse.com/cic2013-report/>



Annie Pickert Fuller/Pearson Education, Inc.

4. How many hours a day do you spend surfing the Internet or posting on social networking sites like Facebook, tweeting on Twitter, or uploading pictures to photo-sharing sites like Snapchat or Instagram? _____. Do these activities affect your studying, concentration, and grades? _____. If so, how? _____

HOW DO DISTRACTIONS INTERFERE WITH YOUR LEARNING?

Learning is a process of connecting new information with what you have already learned, which is stored in your memory. When you encounter a new piece of information while reading, your mind files it by attaching it to what you have already learned. This is an amazing process that resembles the way we physically file (store) information in folders on our computer or in a file cabinet.

If you interrupt the storage process by stopping to check a text message, then new information will be lost rather than stored (remembered). In order to store the new information, you will have to go back to your original task, refocus, figure out where you left off, and read the material again so that your brain can reset. So you can see that checking text messages while studying is not only a time-waster; it also makes your study time less productive. You learn less when you allow yourself to be interrupted.

HOW CAN YOU MAKE TECHNOLOGY WORK FOR YOU?

How do you eliminate the distractions of technology so that you can use technology to your advantage?

Mobile Devices. Turn off the ringer, vibration, and text notifications while studying and attending class. If you cannot resist the temptation to check your messages, put the device in another room while you are working at home, or leave it in your car or dorm room while you are in class.

E-mail. E-mail is an efficient way of communicating with your instructor or classmates when you cannot talk with them face-to-face or by phone. Be sure to check your e-mail occasionally during the day—perhaps during lunch or between classes—to make sure you are receiving important information.



Text Messages. Text messages have become the primary means of communication for many college students. Although text messages are quick to compose and quick to read, you should refrain from writing or reading them when you are working on your assignments at home or during class time. Make your study time a “text-free” time.

Apps. Many devices and phones offer applications, or “apps,” that are helpful in your studies. You can download free (or inexpensive) dictionaries, encyclopedias, grammar guides, calendars and schedulers, and a host of other apps that can help with your studies. Put these apps on your main screen, and put your social or entertainment apps (such as Facebook) on a later screen.

Social Media and Webcams. In some classes, you will be expected to work as a group to discuss topics or collaborate on projects. Programs like Skype make it easy for a group to “meet” when everyone is online at the same time. Leave your webcam off during all other study times. Set up a course or group study page on Facebook and use it to share information with classmates, study for exams, or exchange study tips and suggestions.

DOES LIMITING SOCIAL TECHNOLOGY IMPROVE YOUR WORK?

Commit to following the advice in this workshop for one week. At the end of the week, assess your progress. Did you accomplish more and better-quality work? Were you more focused in class and during your study sessions? Did you get better grades on your assignments? Did you get your assignments done more quickly? Did you feel more in control of the technology in your life?

HOW CAN I TAKE CHARGE OF TECHNOLOGY IN MY LIFE?

- Remember that technology is a tool you use, not something that controls or directs your behavior.
- Create separate zones, school and social, to allow you to use technology more effectively.
- Reserve some time each day to “unplug” and be technology free—especially before bedtime.

CONCENTRATE!

Control distractions.

Overcome the desire to post on social media while studying.

Notice and manage your surroundings.

Create and keep to a schedule.

E-mail only when necessary.

Narrow your concentration to focus on one thing at a time.

Turn off the phone.

Resist the temptation to procrastinate.

Avoid loud, crowded places.

Text wisely.

Engage with the assignment and course content.

CHAPTER

1

First Steps to Academic Success

LEARNING GOALS

In this chapter you will learn to

- 1 Establish goals and manage your valuable time.
- 2 Analyze your learning style.
- 3 Understand instructors' teaching styles.
- 4 Meet instructors' expectations.
- 5 Use active learning strategies.
- 6 Explain and illustrate critical thinking.

LEARNING EXPERIMENT

- 1 Study the photograph on the right for one minute.
- 2 Draw a sketch of one of the people in the photograph.
- 3 Write two or three sentences describing this person.
- 4 Compare your drawing and description with those of your classmates by quickly passing them around the room.

The Results

No doubt, some sketches were much better than others. Some were detailed, accurate likenesses; others may have resembled stick figures. Some descriptions



CREATISTA/Shutterstock

were detailed; others were not. You can conclude that some students have stronger artistic ability than others. Some students have stronger verbal abilities than others. Which students do you expect will do well in an art class? Who will do better on essay exams? Who might consider a career in graphic design?

Learning Principle: What This Means to You

You have strengths and weaknesses as a learner; you should capitalize on your strengths and strive to overcome your weaknesses. In this chapter you

will learn to identify strengths and weaknesses, manage your time, and choose study methods accordingly. You will also discover that instructors have unique teaching styles and discover how to adapt to them. Finally, you will learn what kinds of learning and thinking your instructors expect of you.

ESTABLISHING GOALS AND MANAGING YOUR VALUABLE TIME

Like most students, you are likely dividing your time among school, family, household responsibilities, friends, and possibly a job. Finding a way to manage your time effectively will help you feel less stressed and more comfortable in all aspects of your life.

Goal 1

Establish goals and manage your valuable time.

Establishing Your Goals and Priorities

One of the first steps in getting organized and succeeding in college is to set your priorities—to decide what is and what is not important to you. For most college students, finding enough time to do everything they *should* do and everything they *want* to do is nearly impossible. They face a series of conflicts over the use of their time and are forced to choose among a variety of activities. Here are a few examples:

Want to do:

- Take family to park
- Go to hockey game
- Go out with friends

Should do:

- vs. Finish psychology reading assignment
- vs. Work on research paper
- vs. Get a good night's sleep

One of the best ways to handle such conflicts is to identify your goals. Ask yourself: What is most important to me? What activities can I afford to give up? What is least important to me when I am pressured for time? For some students, studying is their first priority. For students with family or work responsibilities, caring for a child or being available for their shift might be their first priority, and attending college is next in importance.

DEFINING GOALS BASED ON YOUR PRIORITIES In defining your goals, be specific and detailed. Use the following guidelines.

- **Your goals should be positive (what you want) rather than negative (what you don't want).** Don't say "I won't ever have to worry about credit card balances and bill collectors." Instead, say "I will have enough money to live comfortably."
- **Your goals should be realistic.** Unless you have strong evidence to believe you can do so, don't say you want to win an Olympic gold medal in swimming. Instead, say you want to become a strong, competitive swimmer.
- **Your goals should be achievable.** Don't say you want to earn a million dollars a year; most people don't earn that much. Set more achievable, specific goals, such as "I want to buy a house by the time I am 30."

- **Your goals should be worth what it takes to achieve them.** Becoming an astronaut or a neurosurgeon takes years of training. Are you willing to invest that amount of time?

College can provide you with the self-awareness, self-confidence, knowledge, skills, practice facilities, degrees, friendships, and business contacts that can help you achieve your life goals.

Exercise 1

DIRECTIONS Write a list of five to ten life goals.

Exercise 2

DIRECTIONS For each of your life goals listed in Exercise 1, explain how attending college will help you achieve that goal.

Analyzing Your Time Commitments

To make your time commitments reflect your priorities, you must determine how much time is available and then decide how you will use it.

Let's begin by making some rough estimates to help you see where your time goes each week. Fill in the chart in Figure 1-1, making reasonable estimates. After you've completed the chart, total your hours per week and write the answer in the space marked "Total committed time per week." Next, fill in that total below and complete the subtraction.

168	hours in one week
_____	total committed time
_____	hours available

Are you surprised to see how many hours per week you have left? Now answer this question: Do you have enough time available for reading and studying? As a rule of thumb, most instructors expect you to spend two hours studying for every hour spent in class. Complete the following multiplication for your class schedule this term:

_____ hours spent in class \times 2 = _____ study hours needed

Do you have this much time available each week? If your answer is no, then you are overcommitted. If you are overcommitted, ask yourself: Can I drop any

	HOURS PER DAY	HOURS PER WEEK
Sleep	_____	_____
Breakfast	_____	_____
Lunch	_____	_____
Dinner	_____	_____
Part- or full-time job	_____	_____
Time spent in class	_____	_____
Transportation time	_____	_____
Personal care (dressing, shaving, etc.)	_____	_____
Household/family responsibilities (cooking dinner, driving sister to work, etc.)	_____	_____
Sports	_____	_____
Other priorities	_____	_____
Total committed time per week	_____	_____

FIGURE 1-1
Weekly Time Commitments

activity or do it in less time? Can I reduce the number of hours I work, or can another family member split some time-consuming responsibilities with me? If you are unable to reduce your committed time, talk with your advisor about taking fewer courses.

If you are overcommitted, now is the time to develop a weekly schedule that will help you use your available time more effectively. You are probably concerned at this point, however, that your time analysis did not take into account social and leisure activities. That omission was deliberate.

Although leisure time is essential to everyone's well-being, it should not take precedence over college work. Fortunately, most students who develop and follow a time schedule for accomplishing their course work are able to handle family and community obligations and still have time left for leisure and social activities. They also find time to become involved with campus groups and activities—an important aspect of college life.

Building a Term Plan

A term plan lists all your unchanging commitments. These may include class hours, transportation to and from school and work, family commitments, religious obligations, job hours (if they are the same each week), sleep, meals, and sports. A form for a term plan is shown in Figure 1-2. You'll use your term plan to build weekly time schedules. Adjust your schedule each week as necessary.

If you prefer to keep your schedule electronically, use an electronic calendar or scheduler on your laptop or cell phone. These applications can send you reminders about important deadlines and dates. They can also help you keep track of key dates throughout the course of the term (for example, scheduled exams and due dates for papers).

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00							
8:00							
9:00							
10:00							
11:00							
12:00							
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							

FIGURE 1-2
Term Plan

Exercise 3

DIRECTIONS Use the form shown in Figure 1-2 or a computer software program to build your own term plan. ●

Building Your Weekly Schedule

A weekly schedule is a plan that shows when and what you will study. It includes specific times for studying particular subjects as well as specific times for writing papers, conducting library research, and completing homework assignments for each course.

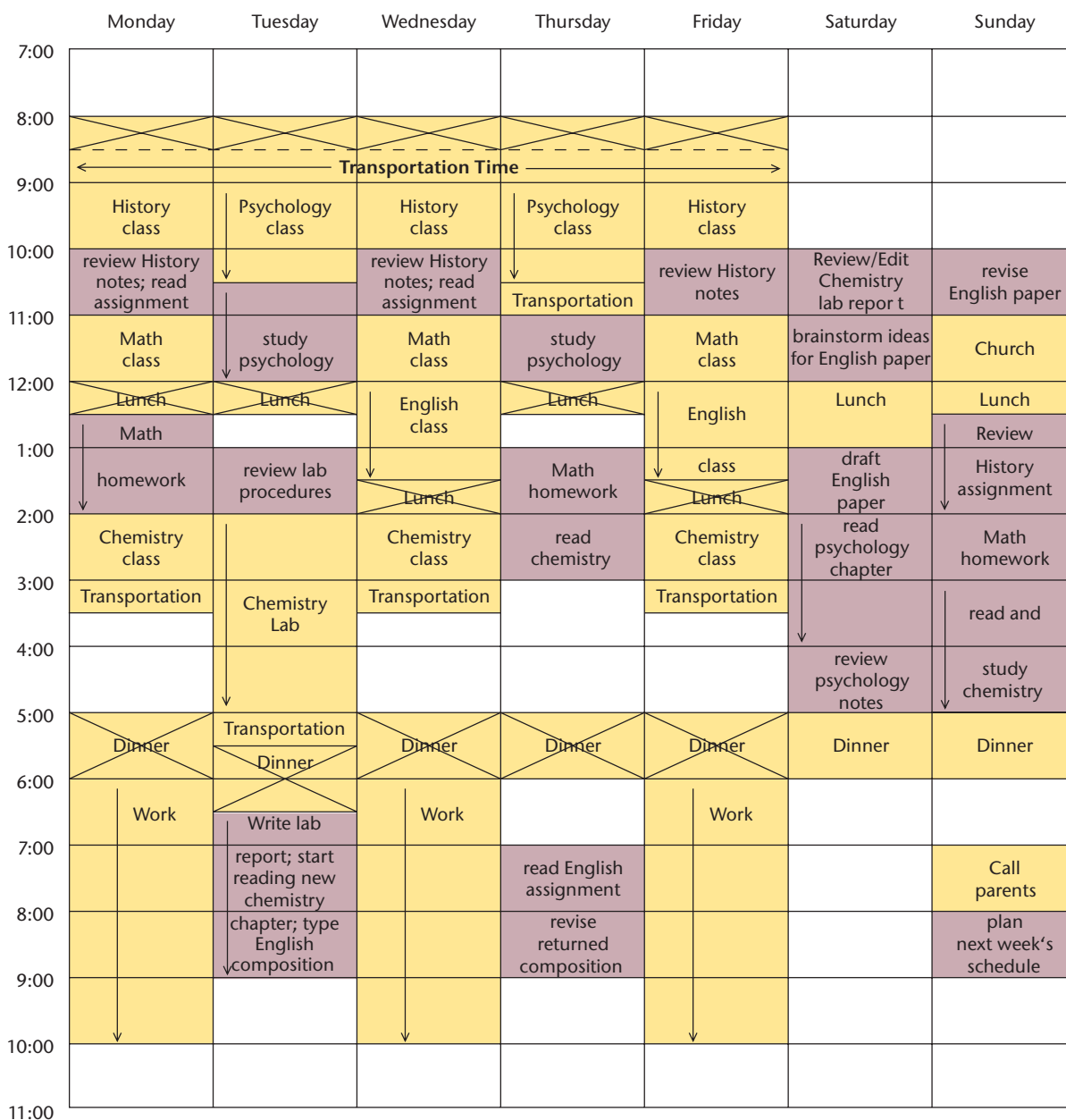


FIGURE 1-3
Sample Weekly Time Schedule

At the beginning of each week, decide what you need to accomplish that week, given your unchanging commitments. Consider upcoming quizzes, exams, and papers. A weekly schedule will eliminate the need to make frustrating last-minute choices between “should” and “want to” activities. The sample weekly time schedule in Figure 1-3 was developed by a first-year student. Her unchanging commitments are shown in yellow. Her weekly study adjustments are shown in lavender. Read the schedule carefully, noticing how the student reserved time for studying for each of her courses.

TIPS FOR CREATING A WEEKLY SCHEDULE Now that you have seen a sample weekly schedule, you can build your own, using the following guidelines.

1. **Before the week begins, assess the upcoming week’s workload.** Reserve a specific time for this activity. Sunday evening works well for many students.

Check your course management system or your class Web site for updates and new assignments. Review your long-term or electronic planner for upcoming quizzes, exams, papers, and assignments.

2. **Write in any appointments, such as with the doctor or for a haircut.** Add in new commitments such as babysitting or helping a friend.
3. **Estimate the amount of time you will need for each of your courses.** Add extra time if you have an important exam or if the amount of reading is particularly heavy. Block in study times for each course.
4. **Plan ahead.** If there's a paper due next week that requires library research, schedule time to begin your research. If you work on a shared computer (for example, in a computer lab), make sure you reserve access in advance.
5. **Block out reasonable amounts of time, especially on weekends, for having fun and relaxing.** For example, mark off the time to watch a movie or allocate time for exercise.
6. **Build into your schedule a short break before you begin studying each new subject.** Your mind needs time to refocus—to switch from one set of facts, problems, and issues to another.
7. **Include short breaks when you are working on just one assignment for a long period of time.** A 10-minute break after 50 to 60 minutes of study is reasonable.
8. **Set aside a specific time each week for developing next week's plan.** Also be sure to review your prior week's performance.

WHEN TO STUDY WHICH SUBJECTS The order in which you study various subjects and complete various tasks does matter. Use the suggestions below to use your study time effectively.

Keeping to your weekly schedule will mean saying no. When friends call and want to chat at a time you planned to study, you will have to refuse. When a friend or family member asks you to do a favor—such as running an errand—you will have to refuse, but you can suggest some alternative times when you will be free. You will find that your friends and family accept your constraints and respect you for being conscientious.

GETTING THE MOST OUT OF YOUR STUDY TIME

Visual Thinking APPLYING SKILLS

How could this student study more efficiently?

1. **Study difficult subjects first.** It's tempting to get easy tasks and short assignments out of the way first, but resist this temptation. When you start studying, your mind is fresh and alert, and you are at your peak of concentration. This is when you are best equipped to handle difficult subjects.
2. **Leave the routine and more mechanical tasks for later in the evening.**
3. **Schedule study for a particular course close to the time when you attend class.** Plan to study the evening before the class meets or soon after the class meeting. If a class meets on Tuesday morning, plan to study Monday evening or Tuesday afternoon or evening.



Tor Eigeland/Alamy Stock Photo

4. **When reading or studying a particular subject, try to schedule two or three short, separate blocks of time for that course.** One long, continuous block can be fatiguing.
5. **Schedule study sessions at times when you know you are usually alert and feel like studying.** Do not schedule a study time early on Saturday morning if you are not a morning person, and try not to schedule study time late in the evening if you are usually tired after 8 P.M.
6. **Plan to study at times when your physical surroundings are quiet.** If the dinner hour is a rushed and confusing time, don't attempt to study then if alternative times are available. Eliminate distractions. Turn off your cell phone, disable instant messaging, and log out of social media sites.

DIRECTIONS Using the term plan you wrote in Exercise 3, create a plan for next week. ●

Exercise 4

Using Time-Saving Tips to Manage a Busy Schedule

Here are a few suggestions that will help you to make the best use of your time.

1. **Use your smart phone's calendar.** Track tests, due dates for papers, and study group meetings. Set reminders to be notified of important deadlines.
2. **Set priorities.** Decide what is most important to complete immediately and which assignments could, if necessary, be completed later.
3. **Use spare moments.** Think of all the time you spend waiting. You wait for a class to begin, for a ride, for a pizza to arrive. Instead of wasting this time, you could use it to review a set of lecture notes, work on review questions at the end of a chapter, or review a chemistry lab setup.
4. **Combine activities.** Busy students soon learn that it's possible to combine some daily chores with routine class assignments. Some students, for example, are able to do laundry and between loads outline a history chapter or work on routine assignments. Others review formulas for math or science courses or review vocabulary cards for language courses while riding a bus.
5. **Use lists to keep yourself organized and to save time.** A daily to-do list is helpful in keeping track of what needs to be done. As you think of tasks you need to do (whether related to coursework or not), jot them down or track them in the notes app in your phone. Then look over the list each morning and try to find the best way to get everything done.
6. **Recognize when you're trying to do too much.** If you find your schedule is becoming too hectic or unmanageable, or if you are facing pressures you can't handle, consider dropping a course. Don't be too concerned that this will put you behind schedule for graduation. More than half of all college students take longer than the traditional time expected to earn their degrees. You may be able to pick up the course later during a summer or winter session or carry a heavier load during another semester.

Controlling the Tendency to Procrastinate

Have you ever felt that you should work on an assignment, and even wanted to get it out of the way, but you could not get started? If so, you have procrastinated—

put off tasks that need to be done. We often put off tedious, difficult, or uninteresting tasks. However, it is often these very tasks that are essential to success in college courses. The following suggestions can help you overcome or control a tendency to procrastinate.

HOW TO FIGHT PROCRASTINATION

Do you . . .	Try this:
Get distracted?	<ul style="list-style-type: none"> • Turn off the television. • Set your cell phone to silent (or put it in your backpack or another room). • Close social media. • Clear your desk; get rid of clutter; move other unfinished projects out of sight. • Avoid stimulus overload—don't listen to music while attempting to study in a busy and loud student lounge, for example.
Feel overwhelmed by the task?	<ul style="list-style-type: none"> • Break the task into manageable parts; this will make the task seem doable. Work on one piece at a time.
Try to avoid the task?	<ul style="list-style-type: none"> • Don't spend time on easy tasks like cleaning because they're easier than studying. • Sit and stay at your desk. Study in a library, where distractions and temptations are minimized.

REGARDLESS OF WHAT YOU DO, START! If you are having difficulty getting started, do something other than sit and stare, regardless of how trivial it may seem. The following tips will help you get started.

JUMP START!

- Start with a small task that takes very little time, such as rereading a specific assignment.
- Start with easy-to-do tasks, such as making a list of what needs to be done.
- Give yourself five minutes to get started. Once you are involved with the task, it will be easier to continue.

RECOGNIZE WHEN YOU NEED MORE INFORMATION Sometimes procrastination is a signal that you lack skills or information. You may be avoiding a task because you're not sure how to do it. You may not really understand why a certain procedure is used to solve a particular type of math problem, for example, so you feel reluctant to do math homework. Similarly, selecting a topic for a term paper may be difficult if you aren't certain of the paper's purpose or expected length. Overcome such stumbling blocks by discussing them with classmates or with your professor.

Thinking Positively

As you begin a task, it is easy to get discouraged by negative thoughts. A positive attitude will make the task more enjoyable (or at least less painful). Use the following tips to help you avoid negative thoughts.

HOW TO STAY POSITIVE	
If you think . . .	Try telling yourself . . .
This is boring.	I'll be able to stick with this (and give myself a reward when I finish).
I can't wait to finish.	It will feel great to have this job done.
I'll never be able to remember all of this.	I'll highlight what is important for later review.
This is not useful to learn anyway.	My instructor would not assign this if it weren't important.
If I didn't have to do this, I could be _____.	When this task is finished, I'll find time to _____.

DIRECTIONS Read each situation described, and then answer the questions that follow. Discuss your responses with another student, or write your answers in the spaces provided.

1. In analyzing his amount of committed time, Zabir filled in a weekly chart, in hours, as follows:

Sleep	56
Breakfast, lunch, dinner (total)	14
Job	35
Time in classes	23
Transportation	10
Personal care	15
Household/family	20
Study time	30
Total	203

Zabir is overcommitted; his total commitments add up to more hours than there are in a week (168). He has to have at least a part-time job in order to pay for school. He is working toward a degree in science lab technology, so he must spend a lot of class hours in lab. He estimates that he needs 30 hours of study time per week to maintain a high B average this semester. It is also important for him to have some time for leisure and recreation. Look at his chart again. What are his choices? Try to find as many alternatives as you can.

Exercise 5

Collaboration

2. Tiffany is a serious student but is having difficulty with her accounting course. She has decided to spend all day Sunday studying accounting. She plans to lock herself in her room and not come out until she has reviewed four chapters. What is wrong with her approach? What study plan would be more effective?

3. Mark realizes that he has three assignments that must be completed in one evening. The assignments are to revise an English composition, to read and highlight ten pages in his anatomy and physiology text, and to learn a set of vocabulary words for his sociology course. He decides to get the sociology assignment out of the way first, to do the English composition next (because English is one of his favorite subjects), and then to read the anatomy and physiology text. Evaluate Mark's plan of study.

4. You are taking a course in music appreciation, and your instructor sometimes unexpectedly asks you to listen to a certain part of a concert or watch a particular program online. You cannot predict when these assignments will be given or when you will need to complete them. What could you do to include them in your weekly study schedule?

Goal 2

Analyze your learning style.

ANALYZING YOUR LEARNING STYLE

It is important to analyze your learning style because:

- You will understand your strengths and weaknesses as a learner and understand how to choose study methods accordingly.
- You will realize why you learn more easily from some instructors than from others.
- You will discover what kinds of learning and thinking are expected in college.

How to Analyze Your Learning Style

Have you noticed that some types of tasks are easier to complete than others? Have you found that a study method that works well for a classmate does not work as well for you? These differences can be explained by *learning style*. Just as you have a unique personality, you also have a unique learning style. People differ

in how they learn and in the methods and strategies they use to learn. Learning style can also explain why certain assignments are difficult and other learning tasks are easy.

The following questionnaire will help you understand your personal learning styles. Complete the Learning Style Questionnaire before continuing.

Learning Style Questionnaire

DIRECTIONS Each item presents two choices. Select the alternative that best describes you. In cases where neither choice suits you, select the one that is closer to your preference. Write the letter of your choice on the line to the left of each item.

PART ONE

- | | |
|--|---|
| <p>_____ 1. I would prefer to follow a set of</p> <p style="margin-left: 40px;">a. oral directions.</p> <p style="margin-left: 40px;">b. print directions.</p> | <p>_____ 5. I prefer classes in which the instructor</p> <p style="margin-left: 40px;">a. lectures and answers questions.</p> <p style="margin-left: 40px;">b. uses PowerPoint illustrations and videos.</p> |
| <p>_____ 2. I would prefer to</p> <p style="margin-left: 40px;">a. attend a lecture given by a famous psychologist.</p> <p style="margin-left: 40px;">b. read an online article written by the psychologist.</p> | <p>_____ 6. To follow current events, I prefer to</p> <p style="margin-left: 40px;">a. listen to the news on the radio or watch a TV or Web broadcast.</p> <p style="margin-left: 40px;">b. read the news in print or online.</p> |
| <p>_____ 3. When I am introduced to someone, it is easier for me to remember the person's</p> <p style="margin-left: 40px;">a. name.</p> <p style="margin-left: 40px;">b. face.</p> | <p>_____ 7. To learn how to repair a flat tire, I would prefer to</p> <p style="margin-left: 40px;">a. listen to a friend's explanation.</p> <p style="margin-left: 40px;">b. watch a demonstration.</p> |
| <p>_____ 4. I find it easier to learn new information using</p> <p style="margin-left: 40px;">a. language (words).</p> <p style="margin-left: 40px;">b. images (pictures).</p> | |

PART TWO

- | | |
|--|---|
| <p>_____ 8. I prefer to</p> <p style="margin-left: 40px;">a. work with facts and details.</p> <p style="margin-left: 40px;">b. construct theories and ideas.</p> | <p>_____ 12. I prefer tasks that require me to</p> <p style="margin-left: 40px;">a. follow careful, detailed instructions.</p> <p style="margin-left: 40px;">b. use reasoning and critical analysis.</p> |
| <p>_____ 9. I would prefer a job that involved</p> <p style="margin-left: 40px;">a. following specific instructions.</p> <p style="margin-left: 40px;">b. reading, writing, and analyzing.</p> | <p>_____ 13. For a criminal justice course, I would prefer to</p> <p style="margin-left: 40px;">a. discover how and when a law can be applied.</p> <p style="margin-left: 40px;">b. learn how and why it became law.</p> |
| <p>_____ 10. I prefer to</p> <p style="margin-left: 40px;">a. solve math problems using a formula.</p> <p style="margin-left: 40px;">b. discover why the formula works.</p> | <p>_____ 14. To learn more about the operation of a digital camera, I would prefer to</p> <p style="margin-left: 40px;">a. work with several types of digital cameras.</p> <p style="margin-left: 40px;">b. understand the principles on which it operates.</p> |
| <p>_____ 11. I would prefer to write a term paper explaining</p> <p style="margin-left: 40px;">a. how a process works.</p> <p style="margin-left: 40px;">b. a theory.</p> | |

PART THREE

- _____ 15. To solve a math problem, I would prefer to
 - a. draw or visualize the problem.
 - b. study a sample problem and use it as a model.
- _____ 16. To remember something best, I
 - a. create a mental picture.
 - b. write it down.
- _____ 17. Assembling a bicycle from a diagram would be
 - a. easy.
 - b. challenging.
- _____ 18. I prefer classes in which I
 - a. handle equipment or work with models.
 - b. participate in a class discussion.
- _____ 19. To understand and remember how a machine works, I would
 - a. draw a diagram.
 - b. write notes.
- _____ 20. I enjoy
 - a. drawing or working with my hands.
 - b. speaking, writing, and listening.
- _____ 21. If I were trying to locate an office on an unfamiliar university campus, I would prefer
 - a. a map.
 - b. a set of printed directions.

PART FOUR

- _____ 22. For a grade in biology lab, I would prefer to
 - a. work with a lab partner.
 - b. work alone.
- _____ 23. When faced with a difficult personal problem, I prefer to
 - a. discuss it with others.
 - b. resolve it myself.
- _____ 24. Many instructors could improve their classes by
 - a. including more discussion and group activities.
 - b. allowing students to work on their own more frequently.
- _____ 25. When listening to a lecturer or speaker, I respond more to
 - a. the person presenting the ideas.
 - b. the ideas themselves.
- _____ 26. When on a team project, I prefer to
 - a. work with several team members.
 - b. divide up tasks and complete those assigned to me.
- _____ 27. I prefer to shop and do errands
 - a. with friends.
 - b. by myself.
- _____ 28. A job in a busy office is
 - a. more appealing than working alone.
 - b. less appealing than working alone.

PART FIVE

- _____ 29. To make decisions, I rely on
 - a. my experiences and gut feelings.
 - b. facts and objective data.
- _____ 30. To complete a task, I
 - a. can use whatever is available to get the job done.
 - b. must have everything I need at hand.
- _____ 31. I prefer to express my ideas and feelings through
 - a. music, song, or poetry.
 - b. direct, concise language.
- _____ 32. I prefer instructors who
 - a. allow students to be guided by their own interests.
 - b. make their expectations clear and explicit.

- _____ 33. I tend to
- a. challenge and question what I hear and read.
 - b. accept what I hear and read.
- _____ 34. I prefer
- a. essay exams.
 - b. objective exams.
- _____ 35. In completing an assignment, I prefer to
- a. figure out my own approach.
 - b. be told exactly what to do.

To score your questionnaire, record the total number of times you selected choice *a* and the total number of times you selected choice *b* for each part of the questionnaire. Record your totals in the scoring grid provided.

SCORING GRID		
Part	Total Number of Choice <i>a</i>	Total Number of Choice <i>b</i>
Part One	<u>Auditory</u>	<u>Visual</u>
Part Two	<u>Applied</u>	<u>Conceptual</u>
Part Three	<u>Spatial</u>	<u>Verbal</u>
Part Four	<u>Social</u>	<u>Independent</u>
Part Five	<u>Creative</u>	<u>Pragmatic</u>

Now circle your higher score for each part of the questionnaire. The word below the score you circled indicates an aspect of your learning style. Scores in a particular row that are close to one another, such as a 3 and a 4, suggest that you do not exhibit a strong, clear preference for either aspect. Scores that are farther apart, such as a 1 and a 6, suggest a strong preference for the higher-scoring aspect. The next section describes these aspects and explains how to interpret your scores.

Interpreting Your Scores

The questionnaire was divided into five parts; each part identifies one aspect of your learning style. These five aspects are explained below.

PART ONE: AUDITORY OR VISUAL LEARNERS This score indicates the sensory mode you prefer when processing information. Auditory learners tend to learn

more effectively through listening. Visual learners process information by seeing it in print or other visual modes, including films, pictures, or diagrams.

PART TWO: APPLIED OR CONCEPTUAL LEARNERS This score describes the types of learning tasks and learning situations you prefer and find easiest to handle. If you are an applied learner, you prefer tasks that involve real objects and situations. Practical, real-life learning situations are ideal for you. If you are a conceptual learner, you prefer to work with language and ideas; practical applications are not necessary for understanding.

PART THREE: SPATIAL OR VERBAL LEARNERS This score reveals your ability to work with spatial relationships. Spatial learners are able to visualize, or mentally see, how things work or how they are positioned in space. Their strengths may include drawing, assembling things, or repairing. Verbal learners tend to rely on verbal or language skills, rather than skills in positioning things in space.

PART FOUR: SOCIAL OR INDEPENDENT LEARNERS This score reveals your preferred level of interaction with other people in the learning process. If you are a social learner, you prefer to work with others—both peers and instructors—closely and directly. You tend to be people oriented and to enjoy personal interaction. If you are an independent learner, you prefer to work and study alone. You tend to be self-directed or self-motivated and often are goal oriented.

PART FIVE: CREATIVE OR PRAGMATIC LEARNERS This score describes the approach you prefer to take toward learning tasks. Creative learners are imaginative and innovative. They prefer to learn through discovery or experimentation. They are comfortable taking risks and following hunches. Pragmatic learners are practical, logical, and systematic. They seek order and are comfortable following rules.

Exercise 6

DIRECTIONS Write a paragraph describing yourself as a learner. Include aspects of your learning style and give examples from everyday experience that confirm your profile. Explain any results of the Learning Style Questionnaire with which you disagree. ●

Developing an Action Plan for Learning

Now that you know more about *how* you learn, you are ready to develop an action plan for learning what you read. Figure 1-4 lists each aspect of learning style and offers suggestions for how to learn from a reading assignment. To use the figure:

1. Circle the five aspects of your learning style for which you received higher scores. Disregard the others.
2. Read through the suggestions that apply to you.
3. Place a check mark in front of the suggestions you think will work for you. Choose at least one from each category.
4. List the suggestions you chose in the following Action Plan for Learning box.

AUDITORY	VISUAL
<ol style="list-style-type: none"> 1. Record review notes. 2. Discuss/study with friends. 3. Talk aloud when studying. 4. Record lectures. 5. Listen to audio recordings about the subject matter (podcasts, MP3s). 	<ol style="list-style-type: none"> 1. Use mapping (see Chapter 4). 2. Use visualization. 3. Use online resources if available. 4. View videos when available. 5. Draw diagrams, charts, and maps.
APPLIED	CONCEPTUAL
<ol style="list-style-type: none"> 1. Associate ideas with their application. 2. Take courses with a lab or practicum. 3. Think of practical situations to which learning applies. 4. Use case studies, examples, and applications to cue your learning. 	<ol style="list-style-type: none"> 1. Use outlining. 2. Focus on thought patterns (see Chapter 9). 3. Organize materials into rules and examples.
SPATIAL	VERBAL
<ol style="list-style-type: none"> 1. Draw diagrams; make charts and sketches. 2. Use outlining. 3. Use visualization. 4. Use mapping (see Chapter 4). 	<ol style="list-style-type: none"> 1. Record steps, processes, and procedures in words. 2. Write summaries. 3. Translate diagrams and drawings into language. 4. Write your interpretations next to textbook drawings, maps, and graphics.
SOCIAL	INDEPENDENT
<ol style="list-style-type: none"> 1. Interact with the instructor. 2. Find a study partner. 3. Form an in-person or online study group. 4. Take courses involving class discussion. 5. Work with a tutor. 6. Use social media to trade study tips with classmates. 	<ol style="list-style-type: none"> 1. Use online tutorials if available. 2. Enroll in courses using a traditional lecture–exam format. 3. Consider independent study courses. 4. Purchase review books, study guides, and online self-tutorial packages, if available.
CREATIVE	PRAGMATIC
<ol style="list-style-type: none"> 1. Take courses that involve exploration, experimentation, or discussion. 2. Use annotation to record impressions and reactions. 3. Ask questions about chapter content and answer them. 	<ol style="list-style-type: none"> 1. Write lists of steps, processes, and procedures. 2. Write summaries and outlines. 3. Use a structured study environment. 4. Focus on problem-solving and logical sequence.

FIGURE 1-4
Learning Strategies for
Various Learning Styles

ACTION PLAN FOR LEARNING

Learning Strategy 1 _____

Learning Strategy 2 _____

Learning Strategy 3 _____

Learning Strategy 4 _____

Learning Strategy 5 _____

Now that you have listed suggestions to help you learn what you read, the next step is to experiment with these techniques, one at a time. (You may need to refer to the chapters listed in parentheses in Figure 1-4 to learn or review how a certain technique works.) Use one technique for a while, then move on to the next. Continue using the techniques that seem to work; work on revising or modifying those that do not. Do not hesitate to experiment with other techniques listed in the figure; you may find other techniques that work well for you.

Developing Strategies to Overcome Limitations

You should also work on developing the weaker aspects of your learning style. Make a conscious effort to work on improving areas of weakness as well as taking advantage of your strengths. Your learning style is not fixed or unchanging. Even if you have a low score in auditory learning, for example, many of your professors will lecture and expect you to take notes. If you work on improving your listening and note-taking skills, you will learn better from lectures.

Goal 3

Understand instructors' teaching styles.

UNDERSTANDING YOUR INSTRUCTORS' TEACHING STYLES

Just as each student has an individual learning style, each instructor also has a teaching style. Some instructors, for example, have a teaching style that promotes social interaction among students. An instructor may organize small-group activities, encourage class participation, or require students to work in pairs or teams to complete a specific task. Other instructors offer little or no opportunity for social interaction, as in a lecture class. Some instructors are very applied; they teach by example. Others are more conceptual; they focus on presenting ideas, rules, and theories. In fact, the same five categories of learning styles identified on pages 23–24 can be applied to teaching styles as well.

To an extent, of course, the subject matter also dictates how the instructor teaches. A biology instructor, for instance, has a large body of factual information to present and may feel he or she has little time to schedule group interaction.

Comparing Learning and Teaching Style

Once you are aware of your learning style and consider the instructor's teaching style, you can begin to understand why you learn better from one instructor than from another and why you feel more comfortable in certain instructors' classes than in others. When your learning style does not match the instructor's teaching style, you may have to work harder in the class by taking extra steps to reorganize or reformat the material into a form better suited to your strengths as a learner. The following sections present each of the five categories of learning-teaching styles and suggest how you might adapt to accommodate each type of teaching style.

AUDITORY-VISUAL If your instructor announces essential course information (such as paper assignments, class projects, or descriptions of upcoming exams) orally and your strengths are as a visual learner, you should be sure to record as much information as possible in your notes. If your instructor relies on lectures to present new material not included in your textbook, taking complete lecture notes is especially important. If your instructor uses numerous visual aids and you are a strong auditory learner, consider recording summaries of these visual aids.

APPLIED-CONCEPTUAL If your instructor seldom uses examples, models, or case studies and your strengths are as an applied learner, you need to think of your own examples to make the course material real and memorable to you. Leave space in your class notes to add examples. Add them during class if they come to mind; if not, take time as you review your notes to add examples. If your instructor uses numerous demonstrations and examples and you are a strong conceptual learner, you may need to leave space in your class notes to write in rules or generalizations that state what the examples are intended to prove.

SPATIAL-VERBAL If your strengths are as a spatial learner and your instructor has a verbal teaching style (he or she lectures), then you will need to draw diagrams, charts, and pictures to learn the material. If you are a strong verbal learner and your instructor is spatial (he or she frequently uses diagrams, flowcharts, and so forth), then you may need to translate the diagrams and flowcharts into words in order to learn them.

SOCIAL-INDEPENDENT If your instructor organizes numerous in-class group activities and you tend to be an independent learner, then you will need to spend time alone after class reviewing the class activity, making notes, and perhaps even repeating the activity by yourself to make it more meaningful. If your instructor seldom structures in-class group activities and you tend to be a social learner, try to arrange to study regularly with a classmate or create or join an in-person or online study group.

CREATIVE-PRAGMATIC Suppose your instructor is very systematic and structured in his or her lectures, and, as a creative learner, you prefer to discover ideas through experimentation and free-flowing discussion. In this case, you should consider creating a column in your class notes to record your responses and creative thoughts or reserving the bottom quarter of each page for such annotations. If your instructor is creative and tends to use a loose or free-flowing class format, and you tend to work better with well-organized materials, you may need to rewrite and restructure class notes. If your instructor fails to give you specific guidelines for completing activities or assignments, you should ask for more information.

Exercise 7

DIRECTIONS Analyze your instructors' teaching styles by completing the following chart for the courses you are taking this semester. List as many teaching characteristics as you can, but do not try to cover every aspect of learning-teaching style.

Course	Instructor's Name	Teaching-Style Characteristics
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

Exercise 8

DIRECTIONS After you have completed the chart in Exercise 7, select one of your instructors whose teaching style does not match your learning style. Write a paragraph describing the differences in your styles. Explain how you will change your study methods to make up for these differences. ●

Goal 4

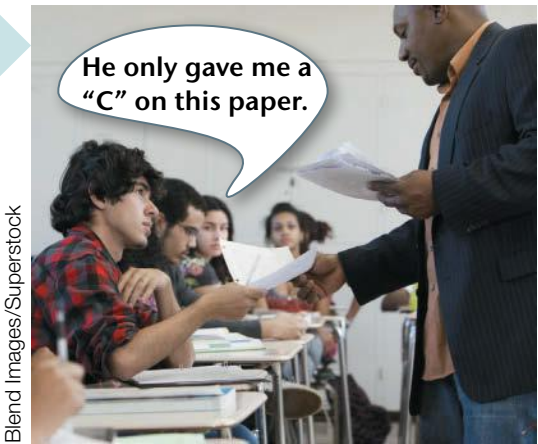
Meet instructors' expectations.

MEETING YOUR INSTRUCTORS' EXPECTATIONS

Whether you have just completed high school or are returning to college with work experiences or family responsibilities, you will face new demands and expectations in college. The following sections describe how to discover your instructors' expectations and how to meet them.

Visual Thinking APPLYING SKILLS

What does this student's comment reveal?



Study the Course Syllabus

Most instructors distribute or post a course syllabus. It is a document that describes how the course operates and includes information on required texts, policies, course objectives, attendance, grades, assignments, and due dates. Read it carefully when you receive it, and refer to it regularly throughout the course. Transfer assignments, deadlines, exams, and other important dates to your daily planner. An

excerpt from a sample syllabus is shown on the next page.

Take Responsibility for Your Own Learning

In college, learning is mainly up to you. Instructors function as guides. They define and explain what is to be learned, but they expect you to do the learning. Weekly class time is far shorter than in high school. For this reason, college class time is used primarily to introduce content and to discuss ideas. Instructors expect you to learn the material and to be prepared to discuss it in class. *When, where, and how* you learn are your choices. Be sure to take into account the five aspects of your learning style as you make these choices.

Sample Course Syllabus

Course Number: BIO 201

Course Name: Human Anatomy and Physiology I

Instructor: Dr. Jack Eberhardt

Prerequisite: BIO 102 with a grade of C or higher

Office Location: 322 Olympic Towers

Office Hours: MWF 1–3

E-mail: jeberhardt@mcc.edu

Note: It may take up to 48 hours to receive a response to any e-mails sent to me. Please do not send text messages; you will not receive a response.

Course page: BIO201-2 on BlackBoard. Note: I do not monitor the discussion board. Please do not ask me questions on the discussion board; you will not receive a response.

Course Objectives:

1. To identify the major parts of a cell and know their functions.
2. To understand the structure and function of the human organ systems.
3. To learn the types of human body tissues and understand their functions.
4. To perform laboratory activities for collection and analysis of experimental data.

Course Grade: Grades will be based on three multiple-choice exams and twelve weekly laboratory reports. Exam questions are based on lecture notes, textbook assignments, and the lab manual. The exams will test factual knowledge as well as critical thinking skills.

Exams will be held on October 17, November 15, and December 8.

Lab manuals will be due on Sept. 23 and 30; October 7, 14, 21, and 28; November 5, 12, 19, and 26; and December 4 and 11.

Attendance: Regular attendance is required for both lecture and laboratory. If you miss a class, you should get the missed material from a classmate. I will post any PowerPoint presentations that I use on the course page; however, not all lectures are accompanied by a PowerPoint presentation. You are responsible for learning the content of any material covered in the lectures, whether this material appears on the course page or not. Make-up labs will not be allowed. If you miss an exam or a lab, you must provide written documentation to explain your absence. If you fail to do so, a grade of zero will be entered.

Tentative Lecture Schedule:

DATE	TOPIC	CHAPTER
Sept. 16	Course Introduction, The Scientific Method	1
Sept. 21	Atoms, molecules, water, Chemical bonding	1, 2

[illegible]



Thinking Critically: Analyzing Your Strengths and Weaknesses

An important component of success in college courses is knowing where your strengths and weaknesses lie. Playing to your strengths is as important as compensating for your weaknesses.

Taking Action

For each of the following challenges, develop a plan for overcoming the challenge and achieving success in the course.

1. I hate studying math, but I need to take an algebra course to get my degree.
2. For my biology course, I need to understand dozens of diagrams of blood flow in the human body, but I am color-blind. Because I can't tell the difference between the red arrows and the green arrows, I can't follow the diagrams.
3. I have to read 40 pages from my psychology textbook each week, but I find the paragraphs hard to read because they have so many names and dates in parentheses, such as (Robinson, 2004) and (Antoine, 2018). The material in parentheses trips me up and slows me down.

Focus on Concepts, Not Facts

Each course you take will require you to learn a great many facts, statistics, dates, definitions, formulas, rules, or principles. It is easy to become a robot learner—memorizing facts from texts and lectures and then recalling them on exams and quizzes. However, factual information is only a starting point, a base from which to approach the real content of a course. Most college instructors expect you to go beyond facts to analysis—to consider what the collection of facts and details *means*. To avoid focusing too intensely on facts, be sure to keep the following questions in mind as you read and study.

- Why do I need to know this?
- Why is this important?
- What principle or trend does this illustrate?
- How can I use this information?
- How does this fit in with other course content?

Focus on Ideas, Not “Right Answers”

Through previous schooling, many students have come to expect their answers to be either right or wrong. They assume that their mastery of the course is measured by the number of “right answers” they have learned. For this reason, they may be lost when faced with an essay question such as the following:

Defend or criticize the arguments that are offered in favor of capital punishment.
Refer to any readings that you have completed.

There is no one right answer to this question. You can either defend the arguments or criticize them. The instructor who asks this question expects you to

think and to provide a reasoned, logical, consistent response that draws on information you have acquired through your reading. Here are a few more examples of questions for which there are no single correct answers.

Would you be willing to reduce your standard of living by 15 percent if the United States could thereby eliminate poverty? Defend your response.

Imagine a society in which everyone has exactly the same income. You are the manager of an industrial plant. What plans, policies, or programs would you implement to motivate your employees to work?

Evaluate New Ideas

Throughout college you will continually encounter new ideas; you will agree with some and disagree with others. Don't accept or reject a new idea, however, until you have really explored it and have considered its assumptions and implications. Ask questions such as these:

- What evidence is available to support this idea?
- What opposing evidence is available?
- How is my personal experience related to this idea?
- What additional information do I need in order to make a decision?

Tip An *assumption* is a firm belief that something is true even without all the evidence to prove it. An *implication* is an idea that's suggested but not stated directly. If your roommate says, "Take your umbrella today," he or she is implying that it's going to rain soon.

DEVELOPING ACTIVE LEARNING STRATEGIES

Your instructors expect you to become an active learner, illustrated by the following situation.

A first-year student who had always thought of himself as a B student was getting low C's and D's in his business course. The instructor gave weekly quizzes; each was a practical problem to solve. Every week the student memorized his lecture notes and carefully reread the assigned chapter in his textbook. When he spoke with his instructor about his low grades, the instructor told him that his study methods were not effective and that he needed to become more active and involved with the subject matter. Memorizing and rereading are passive approaches, the instructor said, suggesting that the student try instead to think about content, ask questions, anticipate practical uses of the theory, solve potential problems, and draw connections among ideas.

Goal 5

Use active learning strategies.

Active Versus Passive Learning

How did you learn to ride a bike, play racquetball, or change a tire? In each case you learned by doing, by active participation. College learning requires similar active involvement and participation. Active learning is expected in most college courses and can often make the difference between barely average grades and top grades.

FIGURE 1-5
Characteristics of
Passive and Active
Learners

ACTIVITIES	PASSIVE LEARNERS	ACTIVE LEARNERS
Class lectures	Write down what the instructor says	Decide what is important to write down
Textbook assignments	Read	Read, think, ask questions, try to connect ideas
Studying	Reread	Consider learning style, make study sheets, create outlines, predict exam questions, look for trends and patterns, use online resources
Writing class assignments	Only follow the professor's instructions	Try to discover the significance of the assignment, look for the principles and concepts it illustrates
Writing term papers	Do only what is expected to get a good grade	Try to expand their knowledge and experience with a topic and connect it to the course objective or content

Figure 1-5 lists common college learning situations and contrasts the responses of passive and active learners. The examples in Figure 1-5 show that passive learners do not carry the learning process far enough. They do not go beyond what instructors tell them to do. They fail to think about, organize, and react to course content.

Active Learning Strategies

When you study, you should be thinking about and reacting to the material in front of you. This is how to do so:

1. **Ask questions about what you are reading.** You will find that asking questions helps to focus your attention and improve your concentration.
2. **Consider the purpose behind assignments.** Why might a sociology assignment require you to spend an hour at the primate exhibit of the local zoo, for example?
3. **Try to see how each assignment fits with the rest of the course.** For instance, why does a section called “Amortization” belong in a business mathematics textbook chapter titled “Business and Consumer Loans”?
4. **Relate what you are learning to what you already know from the course and from your background knowledge and personal experience.** Connect a law in physics with how your car’s brakes work, for example.
5. **Think of examples or situations in which you can apply the information.**

Throughout the remainder of this text, you will learn many strategies for becoming an active learner. Active learning also involves active reading. In Chapter 6 you will learn specific strategies for becoming an active reader.

Learn Actively Using Digital Study Aids

Active learners take it upon themselves to choose effective learning strategies and monitor their effectiveness. Don't overlook tools and aids that are available to help you learn.

USEFUL DIGITAL STUDY AIDS	
Study Aid	Description
Quizlet	A popular online study tool that allows students to practice and master whatever they are learning using such tools as flash cards, self-testing games, and interactive diagrams
Evernote	Organizes notes, information, and research from a variety of sources into a single platform
Schooltraq	An online digital planner that keeps track of assignments, due dates, etc.
GoConqr	Allows you to create digital maps of course content
Google Docs	Enables students to share and edit files

DIRECTIONS Consider each of the following learning situations. Answer each question by suggesting active learning approaches.

1. Your history professor returns a graded exam to you. How could you use it as a learning device? _____

2. You have been assigned to read "Letter from Birmingham Jail" by Martin Luther King, Jr., for your English composition class. What questions would you try to answer as you read? _____

3. Your biology course requires a weekly lab. How would you prepare for attending this lab? _____

4. Your sociology instructor has assigned an article from *The New York Times* on crime in major U.S. cities. How would you record important ideas? _____

Exercise 9

THINKING CRITICALLY

In college, your instructors expect you not only to learn actively, but also to think critically. A first step in becoming a critical thinker is to become familiar with the types of thinking that college instructors demand. Figure 1-6 lists six levels of

Goal 6

Explain and illustrate critical thinking.

FIGURE 1-6
Levels of Thinking

LEVEL	EXAMPLES
REMEMBERING: recalling information, repeating information with no changes	Recalling dates, memorizing definitions for a history exam
UNDERSTANDING: understanding ideas, using rules, and following directions	Explaining a mathematical law, knowing how the human ear functions, explaining a definition in psychology
APPLYING: applying knowledge to a new situation	Using knowledge of formulas to solve a new physics problem
ANALYZING: seeing relationships, breaking information into parts, analyzing how things work	Comparing two poems by the same author
EVALUATING: making judgments, assessing the value or worth of information	Evaluating the effectiveness of an argument opposing the death penalty
CREATING: putting ideas and information together in a unique way, creating something new	Designing a Web page

thinking in order of increasing complexity. Based on a progression of thinking skills developed by Benjamin Bloom and revised by Lorin Anderson, they are widely used by educators in many academic disciplines.

The *remembering* level of thinking is basically memorization; this is something you've been doing for years. The *understanding* level is also familiar. If you are able to explain how to convert fractions to decimals, then you are thinking at the comprehension (*understanding*) level. At the *applying* level, you apply to a new situation information that you have memorized and understood. When you use your knowledge of punctuation to place commas correctly in a sentence, you are functioning at the application level. The *analyzing* level involves examining what you have learned and studying relationships. When you explain how a microscope works, you are analyzing its operation. *Evaluating* involves making judgments. When you decide what is effective and what is ineffective in a classmate's presentation in a public speaking class, you are evaluating the presentation. The *creating* level requires you to put ideas together to form something new. When you write a paper by drawing on a variety of sources, you are synthesizing sources to create something completely new.

Tip *Synthesizing* means "combining." The word part *syn-* means "together" or "with."

The last three levels—analyzing, evaluating, and creating—involve *critical thinking*. Critical thinking requires you to interpret and evaluate what you hear and read, rather than accept everything as "the truth." The term *critical* does not mean "negative." Rather, it means "analytical" and "probing"—that is, thinking more deeply about the subjects you study.

The benefits of critical thinking extend beyond your college courses. In your everyday life, critical thinking skills will help you

- become a savvy consumer and make good financial choices.
- understand when companies are trying to manipulate you with their advertising or public-relations efforts.
- resolve conflicts or come to acceptable compromises.
- solve problems and make decisions using a logical, step-by-step process.

APPLYING LEVELS OF THINKING

Reading and Levels of Thinking

As you read, be sure to think at each level. Here is a list of questions to help you read and think at each level.

Level of Thinking	Questions
REMEMBERING	What information do I need to learn?
UNDERSTANDING	What are the main points and how are they supported?
APPLYING	How can I use this information?
ANALYZING	How is this material organized? How are the ideas related? How are the data presented in graphs, tables, and charts related? What trends do they reveal?
EVALUATING	Is this information accurate, reliable, and valuable? Does the author prove his or her points?
CREATING	How does this information fit with other sources (class lectures, other readings, your prior knowledge)?

DIRECTIONS Identify the level or levels of thinking that each of the following tasks demands.

- Retelling a favorite family story to your nieces and nephews

- Using the principles of time management discussed earlier in this chapter to develop a weekly study plan

- Learning the names of the U.S. presidents since World War II

- Reorganizing your lecture notes by topic

- Writing a letter to the editor of your hometown newspaper praising a recently passed city ordinance that restricts new toxic-waste disposal sites

- Writing a term paper that requires library and online research

- Using prereading techniques when reading your speech communication textbook

- Listening to speeches by two candidates who are running for mayor and then deciding which one gets your vote

Exercise 10

9. Watching several hours of TV programming to determine the amount of time given to commercials, to public service announcements, to entertainment programs, and to news

10. Writing an article for the campus newspaper explaining why on-campus parking is inadequate

Exercise 11

DIRECTIONS Read “Communicating Without Words” and answer the questions that follow.

Communicating Without Words

Have you ever wondered how we can understand what someone is thinking based on their body language? Nonverbal communication comes in many different forms; here are a few to consider:

1. *Facial expressions and body movements.* People often use face and body movements such as rolling their eyes upward to express impatience, holding their hand up to a speaker’s face to express anger, or a bent over posture and downward gaze to express shyness. These nonverbal cues are often as clear as spoken language.
2. *Gestures.* Pointing at a type of donut in a bakery window, waving at a friend walking toward you, or counting with your fingers are all common nonverbal gestures. Have you ever pulled out your cellphone to look at the time while someone was talking to indicate that you needed to go? If so, you were using a popular gesture to communicate nonverbally.
3. *“Haptics,” or communicating through touch,* is yet another form of nonverbal communication. For example, you may put your hand on a close friend’s back to show concern or sympathy. Tickling an infant under his or her chin is another type of nonverbal communication using touch.

1. **Remembering:** What are three forms of nonverbal communication?

2. **Understanding:** Explain how a speaker can reveal his or her emotional state.

3. **Applying:** Give an example (not used in the excerpt) of how a speaker can reveal his or her emotional state.

4. **Analyzing:** If nonverbal communication is relatively free of deception, is it possible to tell a lie using body language?
