

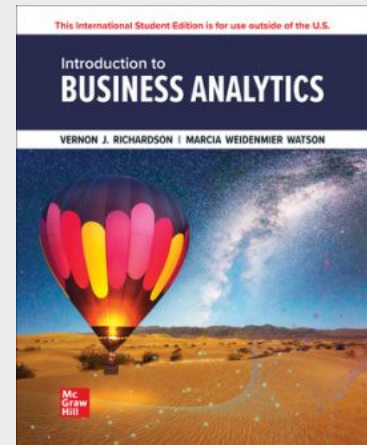


# Introduction to Business Analytics

1st Edition

Richardson and Watson

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*Introduction to Business Analytics* recognizes that students need to develop the skills to ask the right questions, learn to use common workplace tools (such as Excel®, Tableau®, and Power BI®) to examine and analyze data, and interpret results accurately and effectively to make business decisions. Richardson 1e provides a framework for developing a business analytics mindset called the SOAR analytics model which is composed of four steps—Specify the question, Obtain the data, analyze the data, and report the results. This model is used throughout the text in conjunction with the various types of data analysis that analysts need to perform. The lab activities, which appear at the end of each chapter, follow this framework to reinforce the analytical process. A capstone in the final chapter provides three projects that apply the complete SOAR model.

# Features

## New Features

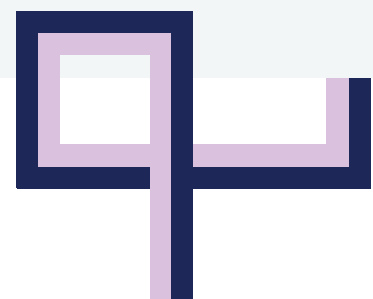
- **Focus on Building Skills with Excel®, Tableau®, and Power BI®:** Students learn how to conduct business analytics using Excel, Tableau, and Power BI—three software tools that are widely used by businesses today.
- **Focus on Building Critical Thinking Skills:** From learning to ask the right questions to interpreting and presenting results, Introduction to Business Analytics fosters critical thinking and develops business analysis skills. It teaches students how to use descriptive, diagnostic, predictive, prescriptive, and advanced analytics to answer a variety of business questions.
- **Emphasis on the Real-World Use of Data:** Mini Cases in each chapter ask students to consider real-world companies and how they can use data to inform their decision-making.
- **Focus on Data Visualization:** The text emphasizes the creation and interpretation of various types of data visualizations useful in summarizing data and making decisions, including histograms, line graphs, pie charts, and scatterplots.
- **Hands-on Labs:** Introduction to Business Analytics offers more than 60 hands-on labs, each using Excel, Tableau, or Power BI. Each lab has two data sets. The first is used with the step-by-step instructions (with screenshots) presented in the text. The second, alternate data set gives students the opportunity to apply what they learned by using the first data set. Lab assessment appears in Connect using multiple-choice questions. Video tutorials of the Labs are also available in Connect.
- **Progress Checks:** Progress Check questions posed at key points in each chapter encourage students to consider and apply the concepts presented.
- **Ethical Use of Data:** Each chapter includes a discussion of important questions related to the ethical collection, use, and sale of data.
- **End-of-Chapter Assessment:** The end-of-chapter assignments include real-world application questions, with an emphasis on skills and tools. Each chapter offers discussion questions, exercises, and problems to reinforce learning.

## Table of Contents

1. Specify the Question: Using Business Analytics to Address Business Questions
2. Obtain the Data: An Introduction to Business Data Sources
3. Analyze the Data: Basic Statistics and Tools Required in Business Analytics
4. Analyze the Data: Exploratory Business Analytics (Descriptive Analytics and Diagnostic Analytics)
5. Analyze the Data: Confirmatory Business Analytics (Predictive Analytics and Prescriptive Analytics)
6. Report the Results: Using Data Visualization
7. Marketing Analytics
8. Accounting Analytics
9. Financial Analytics
10. Operations Analytics
11. Advanced Business Analytics
12. Using the SOAR Analytics Model to Put It All Together: Three Capstone Projects

## Appendix

- A: Excel Tutorial (Formatting, Sorting, Filtering, and Using Pivot Tables)
- B: Tableau Tutorial
- C: Power BI Desktop Tutorial
- D: Basic Statistics Tutorial
- E: Installing Excel's Analysis ToolPak Add-In
- F: Installing Excel's Solver Add-In



## Take your students higher.

McGraw Hill Connect® is a complete course platform. It helps you deliver cohesive learning experiences through structured content and interactivity. When students engage with Connect, their individual needs become clear. This enables you to assign coursework, aligned to the levels of Bloom's Taxonomy, that keeps your students moving forward on their unique learning path from foundational cognitive skills to higher-order thinking and application. The chart below shows how each asset type aligns to Bloom's Taxonomy.

LOWER  HIGHER

ASSET	DESCRIPTION						
		REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
<b>NEW!</b> SmartBook® 2.0	An adaptive reading experience that has been made more personal, accessible, productive, and mobile. SB2.0 gives instructors an assignable reading option that's adaptive and makes students accountable and prepared to understand concepts before class starts.	✓	✓				
<b>NEW!</b> Guided Examples	Narrated videos provide step-by-step walkthroughs of algorithmic versions of assigned problems in Connect, providing immediate feedback and focus on the areas where students need the most guidance. This allows students to identify, review or reinforce the concepts and activities covered in class.	✓	✓	✓			
<b>NEW!</b> Lecture Videos	These video-based tutorials are designed to reinforce chapter select concepts.	✓	✓	✓			
<b>NEW!</b> Lab Help Videos	Help videos for each lab provide a step-by-step tutorial that walks students through the assigned analysis tasks in Excel, Tableau, and Power BI.	✓	✓	✓			
<b>NEW!</b> BStat Prep Modules	B-Stat, Excel, and Math modules are assignable in Connect as prerequisite modules with brief short videos and check questions that are auto-graded. Assigned early in the course, it gets all students in the class on the same level of preparedness of business statistics content.	✓	✓	✓			
<b>NEW!</b> Exercises/ Problems	Select exercises and problems from the text are available for assignment in Connect to ensure students are building an analytical skill set.	✓	✓	✓	✓		

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<b>NEW!</b> Applying Excel Exercises and Excel Data Set Problems	Applying Excel and Excel Data Set exercises are assignable and provided downloadable Excel files within Connect with instructions to develop the spreadsheet, then upload and use their Excel sheet to answer questions in Connect.	✓	✓	✓	✓		
<b>NEW!</b> End of Chapter Algorithmic and Static Excel and R Exercises	This assignable, gradable end-of-chapter content helps students learn to solve problems and apply the concepts in business analytics. Algorithmic versions allow students to practice problems as many times as they need to ensure that they fully understand each problem. Exercises may be Excel or R and code links are provided.	✓	✓	✓	✓	✓	
<b>NEW!</b> Interactive Data Problems	Data problems that allow students to visualize and interact with data in different ways. Students use this tool to manipulate data and answer a variety of accompanying problems that test multiple levels of understanding.	✓	✓	✓	✓	✓	
<b>NEW!</b> Labs with Lab Assessments	While the labs require students to work outside of Connect in Excel, Tableau, and/or Power BI, Connect allows to students to upload their results and answer analytical questions designed to reinforce the lessons from each chapter.	✓	✓	✓	✓	✓	✓