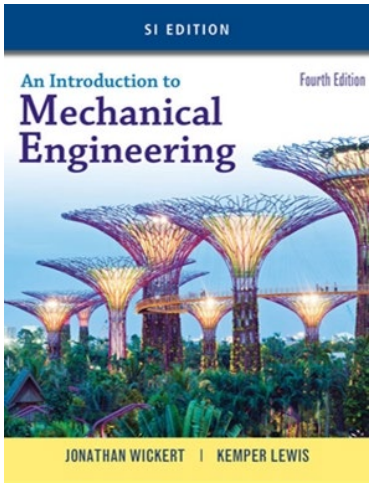
MindTap Quick Start Guide



An Introduction to Mechanical Engineering, SI Edition, 4th Edition
Jonathan Wickert, Kemper Lewis

Introduce your students to today's everchanging field of mechanical engineering as you instill an appreciation for how engineers design hardware that builds and improves societies around the world. AN INTRODUCTION TO MECHANICAL ENGINEERING, 4E by Wickert/Lewis is ideal for students in their first or second year of your college or university's mechanical engineering program. It is also useful for students in closely related fields. The authors effectively balance timely treatments of technical problem-solving skills, design, engineering analysis, and modern technology to provide the solid mechanical engineering foundation students need for future success.

3 Key Features

Activity	Where to find it – an example	What is it	Why it matters
Video and Tutorials	1. Chapter 1: The Mechanical Engineering Profession 2. Chapter 1 Videos and Tutorials 3. Day in the Life: Mechanical Engineer *See it in the Cengage Mobile app*	Videos and Tutorials Videos illustrating engineering concepts and real-world applications can be found in the learning path of relevant chapters.	Videos serve to reinforce what is introduced in the readings. With the addition of the video content, the student is not just reading – he or she is also watching, listening, and thinking about how abstract engineering concepts inform real-world practice.
Study Guides	1. Chapter 1: The Mechanical Engineering Profession 2. Chapter 1 Study Guide	Study Guides These Study Guide PowerPoints summarize each chapter of the book and all of the content within.	Allow for students to review key points from the text.
CNOW Quizzes	1. Chapter 4: Forces in Structures and Machines 2. Chapter 4 Quiz 3. Click on Start Assignment Now to begin quiz	CNOW Quizzes Automatically graded quizzes assess understanding of the chapter. They include feedback for correct and incorrect answers, and explain where to find more information in the text by linking a specific section.	Measure how well the student mastered the material after completing each MindTap chapter. Helps the student study more efficiently by identifying gaps in their knowledge and pointing to the relevant portion of the text.

Wickert/Lewis, *An Introduction to Mechanical Engineering,* 4e

MindTap Asset Description

Activity	How many?	What is it?	Seat time?	Why it matters?
eBook Chapter	8	The MindTap Reader contains all content from the printed text. MindTap Reader also allows students to make notes and highlights in-text, (which are automatically captured and hyperlinked in the StudyHub app), view notes and content added by the instructor, and even have the content read aloud to them.	45-60 Minutes	Readings provide the foundation of knowledge needed to successfully complete quizzes, problem sets, and in-class work, setting your students up for success.
Focus On	19	The "Focus On" boxes contain topical material, either conceptual or applied, that broadens the book's coverage without detracting from its flow.	Varies by student	These sections illustrate real world applications for many concepts discussed within the text.
Case Studies	4	Additional case studies to supplement the text.	Varies by student	These case studies allow students additional insight into chapter concepts and certain design applications.
Digital Digs	46	Digital digs are web links to various sites containing content that further supplements the existing textbook.	Varies by student	These sites offer additional tutorials and tools that help students further their understanding.
Video Illustrations and Tutorials	68	Videos illustrating engineering concepts and real-world applications can be found in the learning path of relevant chapters.	0:14-18:09	Videos serve to reinforce what is introduced in the readings. With the addition of the video content, the student is not just reading – he or she is also watching, listening, and thinking about how abstract engineering concepts inform real-world practice.

Quiz (CNOW)	8 (1 per chapter)	Automatically graded quizzes assess understanding of the chapter. They include feedback for correct and incorrect answers, and explain where to find more information in the text by linking a specific section.	Varies by student	Measure how well the student mastered the material after completing each MindTap chapter. Helps the student study more efficiently by identifying gaps in their knowledge and pointing to the relevant portion of the text.
Study Guides	8	These Study Guide PowerPoints summarize each chapter of the book and all of the content within.	Varies by student	Allow for students to review key points from the text.
Drop-box assignment (practice)(CNOW)	8	Students can upload and submit practice assignments via a drop box integrated within MindTap.	Varies by student	Provide opportunities for practice. This feature enables students to submit papers, reflections and other kinds of written materials as suggested or required by the instructor.
Flashcards	184	Flashcards that help students learn definitions of core concepts and key terms. Students can also create and add their own cards to the stack.	Varies by student	Self-testing via flashcards (not for grades) is validated by robust research. The act of calling information to mind strengthens that knowledge and aids in future retrieval making flashcards an important learning tool.

Chapter	MindTap Assignments
Chapter 1: The Mechanical Engineering Profession	Video Illustrations and Tutorials Digital Digs Study Guide Drop Box Quiz
Chapter 2: Mechanical Design	Video Illustrations and Tutorials Additional Case Studies Digital Digs Study Guide Drop Box Quiz
Chapter 3: Technical Problem-Solving and Communication Skills	Video Illustrations and Tutorials Digital Digs Study Guide Drop Box Quiz
Chapter 4: Forces in Structures and Machines	Video Illustrations and Tutorials Digital Digs Study Guide Drop Box Quiz
Chapter 5: Materials and Stresses	Video Illustrations and Tutorials Digital Digs Study Guide Drop Box Quiz
Chapter 6: Fluids Engineering	Video Illustrations and Tutorials Digital Digs Study Guide Drop Box Quiz
Chapter 7: Thermal and Energy Systems	Video Illustrations and Tutorials Additional Case Study Digital Digs Study Guide Drop Box Quiz
Chapter 8: Motion and Power Transmission	Video Illustrations and Tutorials Digital Digs Study Guide Drop Box Quiz