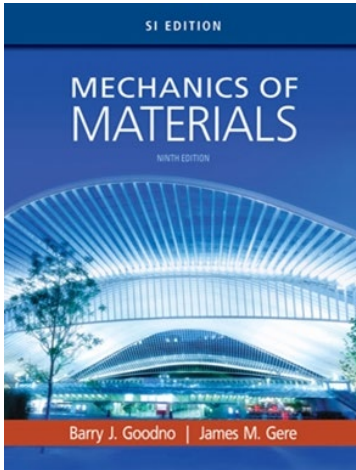


MindTap Quick Start Guide

Mechanics of Materials, SI Edition, 9th Edition

Barry J. Goodno, James M. Gere



Give students a rigorous, complete, and integrated treatment of the mechanics of materials - an essential subject in mechanical, civil, and structural engineering. This leading text, Goodno/Gere's MECHANICS OF MATERIALS, 9E, examines the analysis and design of structural members subjected to tension, compression, torsion, and bending -- laying the foundation for further study.

3 Key Features

| Activity | Where to find it – an example | What is it | Why it matters |
|--------------------------|---|---|---|
| Algorithmic Problem Sets | <ol style="list-style-type: none"> Chapter 1: Tension, Compression, and Shear Chapter 1 Problem Set Click on Start Assignment Now to begin | Algorithmically-generated problem sets can regenerate, with new numbers each time. Student solutions are automatically graded, and detailed solutions are provided for incorrect answers. | Because the numeric values can regenerate over and over again, these problem sets maximize students' opportunities to practice. You, as the instructor, can be confident knowing each student is receiving unique problems to solve. |
| Step-by-Step Tutorials | <ol style="list-style-type: none"> Chapter 3: Torsion Chapter 3 Step by Step Tutorials Example 3.6 Step-by-Step Tutorial | Animated tutorials solve an example problem. Students can move backwards and forwards within the tutorial. | These tutorials directly aid student learning by showing how to solve an engineering problem step by step. Students can move within the tutorial to focus exactly where they most need help. |
| Videos | <ol style="list-style-type: none"> Chapter 7: Analysis of Stress and Strain Chapter 7 Videos Photoelasticity: Introduction to Photoelastic Stress Analysis Apparatus | 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. |

Goodno/Gere, *Mechanics of Materials, SI Edition,*
9e
MindTap Asset Description

| Activity | How many? | What is it? | Seat time? | Why it matters? |
|---------------------------|-----------|--|--------------------|---|
| eBook Chapter | 11 | 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. |
| Chapter Objectives | 11 | Concrete statements explicating what students should be able to do after working through each chapter. | | Clear objectives tell students what to expect and provide a simple reference for students to gauge their progress against. |
| Quiz (CNOW) | 11 | 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. |
| Videos | 60 | Videos illustrating engineering concepts and real-world applications can be found in the learning path of relevant chapters. | 0:17-14:48 Minutes | Videos serve to reinforce what is introduced in the readings. With the addition of the video content, the student is not just reading – |

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|-------------------------------|---------|---|-------------------|--|
| | | of that section, allowing for quick access to video content. | | he or she is also watching, listening, and thinking about how abstract engineering concepts inform real-world practice. |
| Step-Through Tutorials | 9 | Animated tutorials solve an example problem. Students can move backwards and forwards within the tutorial. | 5-10 minutes | These tutorials directly aid student learning by showing how to solve an engineering problem step by step. Students can move within the tutorial to focus exactly where they most need help. |
| Problem Sets | 11 | Algorithmically-generated problem sets can regenerate, with new numbers each time. Student solutions are automatically graded, and detailed solutions are provided for incorrect answers. | Varies by student | Because the numeric values can regenerate over and over again, these problem sets maximize students' opportunities to practice. You, as the instructor, can be confident knowing each student is receiving unique problems to solve. |
| Flashcards | 12 sets | Flashcards that help students learn definitions of core concepts and key terms. Students can also create and add their own cards to the stack. | | 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. |

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| <p>Reflective Questions</p> | <p>11 sets</p> | <p>Short structured activities every few chapters. Questions ask students what they did to prepare for quizzes or problem sets, where they made errors, and what they can do differently next time. The answers also help instructors understand where students need more help.</p> | <p>Varies by student</p> | <p>Research has found these type of “wrapper” questions improve student learning. They help students focus on how they study and the relative effectiveness of those study habits.</p> |
|------------------------------------|----------------|---|--------------------------|--|

| Chapter | MindTap Assignments |
|---|---|
| Chapter 1: Tension, Compression, and Shear | Step-by-Step Tutorials Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 2: Axially Loaded Members | Step-by-Step Tutorials Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 3: Torsion | Step-by-Step Tutorials Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 4: Shear Forces and Bending Moments | Step-by-Step Tutorials Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 5: Stresses in Beams (Basic Topics) | Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 6: Stresses in Beams (Advanced Topics) | Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 7: Analysis of Stress and Strain | Videos Quiz Problem Set Reflective Questions Drop Box |

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| Chapter 8: Applications of Plane Stress (Pressure Vessels, Beams, and Combined Loadings) | Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 9: Deflection of Beams | Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 10: Statically Indeterminate Beams | Videos Quiz Problem Set Reflective Questions Drop Box |
| Chapter 11: Columns | Videos Quiz Problem Set Reflective Questions Drop Box |