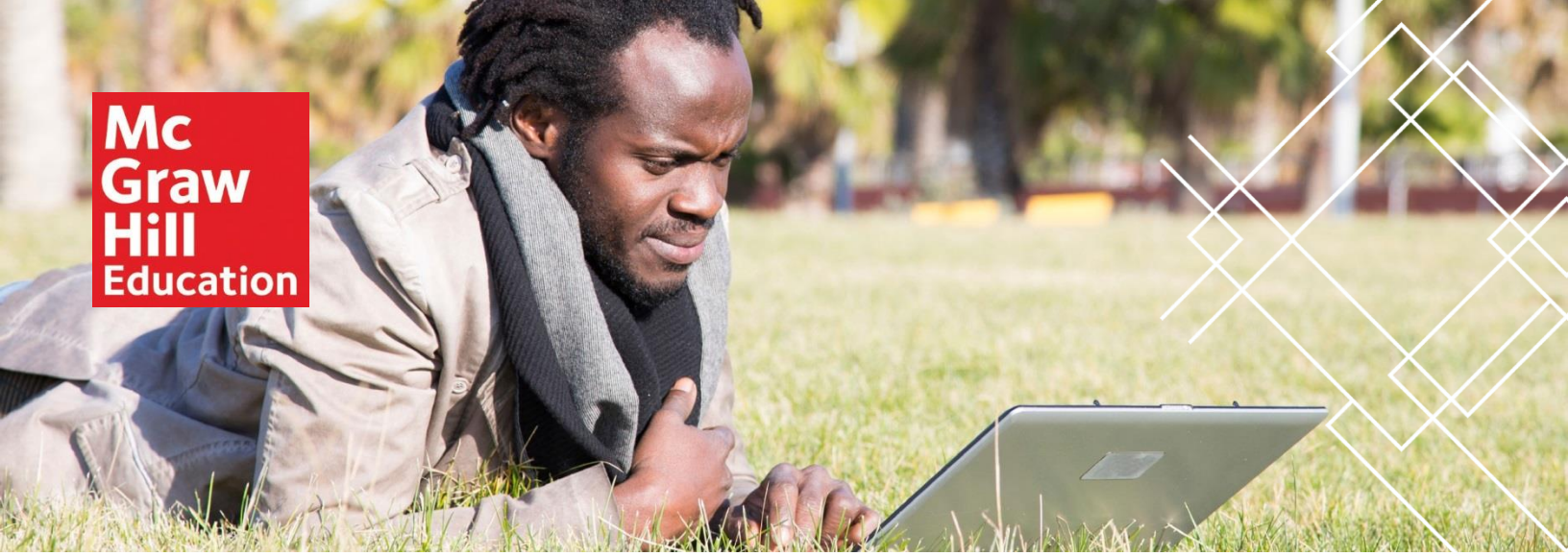

Thermodynamics: An Engineering Approach, 9e

Yunus Cengel and Michael Boles

ISBN: 1259822672

Detailed List of New Features

A large number of the end-of chapter problems in the text have been modified or replaced by new problems.

New! Video Resources. Using the student response data from the 8th edition SmartBook, 2D/3D animation videos have been added to the ebook to help clarify challenging concepts. In addition to these conceptual video resources, worked example problem videos are included in the ebook to help students apply their conceptual understanding to problem solving.

New! Interactive Cycle Applets

Numerous small changes and improvements are made throughout the text including some updates based on recent events and developments.

Retained Features

McGraw-Hill Education Connect is a digital teaching and learning environment that improves performance over a variety of critical outcomes; it is easy to use; and it is proven effective.

Available within McGraw-Hill Education's Connect, SmartBook makes study time as productive and efficient as possible. It identifies and closes knowledge gaps through a continually adapting reading experience that provides personalized learning resources at the precise moment of need. This ensures that every minute spent with SmartBook is returned to the student as the most value-added minute possible. The result? More confidence, better grades, and greater success.

Extensive Use of Artwork. This edition features an enhanced art program done in four colors to provide

more realism and pedagogical understanding. Further, a large number of figures have been upgraded to become three-dimensional and thus more real-life. Figures attract attention and stimulate curiosity and interest. Most of the figures in this text are intended to serve as a means of emphasizing some key concepts that would otherwise go unnoticed; some serve as page summaries.

Over 1,000 engaging illustrations provides a motivating visual program for the text.

Renewable energy is covered in a new chapter available online, and up-to-date examples of solar, wind, geothermal, and other types of energy are covered with their thermodynamics underpinnings.

"An Emphasis on Physical Aspects of Thermodynamics" develops student understanding of the underlying mechanisms and phenomena by using ordinary day-to-day experiences that build up to a mathematical problem. Cengel uses easily recognizable applications and examples.

A distinctive feature of this book is its emphasis on the physical aspects of the subject matter in addition to mathematical representations and manipulations. Cengel uses ordinary day-to-day experiences that build up to a mathamatical problem.

COSMOS (the Complete Online Solutions Manual Organization System) is available with Signals & Systems, for instructors only. COSMOS makes it easy to select exercises and build assignments that can be distributed online or in print. Instructors can also edit existing problems or add their own. To learn more about the system and/or register, visit cosmos.mhhe.com.