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2008 New Titles

- **BEER**
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- **BEER**
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ISBN-13: 978-0-07-331178-4 / MHID: 0-07-331178-2

Statics

International Edition

NEW

MECHANICS FOR ENGINEERS, STATICS

Fifth Edition

by Ferdinand P. Beer (deceased), and E. Russell Johnston, Jr.
University of Connecticut

2008 (March 2007) / Hardcover / 480 pgs

ISBN-13: 978-0-07-246478-8 / MHID: 0-07-246478-X

ISBN-13: 978-0-07-112166-8 / MHID: 0-07-112166-8 [IE]

The first book published in the Beer and Johnston Series, *Mechanics for Engineers: Statics* is a scalar-based introductory statics text, ideally suited for engineering technology programs, providing first-rate treatment of rigid bodies without vector mechanics. This new edition provides an extensive selection of new problems and end-of-chapter summaries. The text brings the careful presentation of content, unmatched levels of accuracy, and attention to detail that have made Beer and Johnston texts the standard for excellence in engineering mechanics education.

FEATURES

- Features precision, accuracy, and math level appropriate for Engineering Technology courses.
- A Mathematics Review section helps students understand the basics of the scalar math used in statics & dynamics.
- Sample Problems are included to help students work through the solution of typical engineering problems and prepare for the assigned chapter homework problems.

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NEW

VECTOR MECHANICS FOR ENGINEERS: STATICS AND DYNAMICS

Eighth Edition

by Ferdinand P Beer (deceased), E Russell Johnston, Jr., University of Connecticut, Elliot R Eisenberg, Pennsylvania State University, William E Clausen, Ohio State University, David Mazurek, U S Coast Guard Academy, and Phillip J Cornwell, Rose-Hulman Inst Tech
2007

ISBN-13: 978-0-07-321222-7 / MHID: 0-07-321222-9

(with Bookmark and OLC)

<http://www.mhhe.com/beerjohnston>

For the past fifty years Beer and Johnston have been the uncontested leaders in the teaching of undergraduate engineering mechanics. Over the years their textbooks have introduced significant theoretical and pedagogical innovations in statics, dynamics, and mechanics of materials education. At the same time, their careful presentation of content, unmatched levels of accuracy and attention to detail have made their texts the standard for excellence. The new Eighth Edition of *Vector Mechanics for Engineers: Statics and Dynamics* marks the fiftieth anniversary of the Beer/Johnston series. Continuing in the spirit of its successful previous editions, the Eighth Edition provides conceptually accurate and thorough coverage together with a significant addition of new problems, including biomechanics problems, and the most extensive media resources available.

NEW TO THIS EDITION

- The 8th editions offer a 48% new or revised homework problem set, with biomechanics-focused problems added appropriately throughout the texts.
- The photo program continues to be expanded in each edition, with new chapter opener and in chapter photos added to each chapter.
- A C.O.S.M.O.S. Solutions Manual, provided to instructors on DVD, allows for assignment generation, tracking, and distribution. Instructors also have the ability to edit homework problems.
- A robust Online Learning Center provides both student and instructor resources including algorithmic problems, S.M.A.R.T. tutorials, lecture PowerPoint's, and images from the text, among other resources.
- McGraw-Hill's web-based Hands-on Mechanics teaching demonstration library provides instructors with instructions for building hands-on physical models used to demonstrate important Statics and Dynamics concepts in class.

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- A careful, step-by-step presentation is followed in each lesson of each chapter; every chapter is organized as follows: an opening photograph to help students visualize key concepts is followed by a chapter introduction with a chapter outline previewing what will be covered in each lesson. After each lesson there are 1-4 Sample Problems (set up to serve as a model for student solutions) followed by a Solving Problems On Your Own section giving solution guidelines before the lesson's problems set. At the end of each chapter students find a Review and Summary section with notes for review and examples and cross references to key sections. Finally, a Review Problem section ties together several concepts from that chapter and a Computer Problems section also has many problems relevant to the design process, encouraging open-ended solutions.
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- Liberal use of free-body diagrams (graphical representation of objects where arrows indicate forces acting on object) in Statics and effective-forces diagrams in Dynamics. By placing the emphasis on "free-body-diagram equations" rather than on the standard algebraic equations of motion, a more intuitive and more complete understanding of fundamental principles is achieved.
- Review and Summary sections at the end of each chapter provide students with a valuable study tool. Reviewers found these chapter reviews to be one of the strongest features of the text and the best available in the market.
- Computer Problems, relevant to the design process, are offered at the end of each chapter. While the problems will be generic, they will be designed to be easily solved using popular computational programs such as Matlab, Mathcad, Maple, etc. The computer problems focus on symbolic manipulation and plotting, as opposed to the more programming-based computer problems in the current editions. Computer problems help students gain a better understanding of basic principles because most require integration of several concepts, much like one does in design. They also allow for open-ended parametric studies.
- A Fundamentals of Engineering Examination Appendix helps prepare students for the FE/EIT exam.
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Bodies in Three Dimensions. 19 Mechanical Vibrations. Appendix Fundamentals of Engineering Examination.



VECTOR MECHANICS FOR ENGINEERS: STATICS

Eighth Edition

by Ferdinand P Beer (deceased), E Russell Johnston, Jr., University of Connecticut, Elliot R Eisenberg, Pennsylvania State University and David Mazurek, U S Coast Guard Academy

2007 / Hardcover

ISBN-13: 978-0-07-321219-7 / MHID: 0-07-321219-9

(with Bookmark and OLC)

ISBN-13: 978-0-07-125765-7 / MHID: 0-07-125765-9

[SI Metric edition]

<http://www.mhhe.com/beerjohnston>

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STATICS LECTURE NOTES (YOT.COM)

by Jeff Jones, California Polytechnic State University

2007 (June 2006) / Softcover / 160 pages

ISBN-13: 978-0-07-331177-7 / MHID: 0-07-331177-4

(with access card)

In the YourOtherTeacher.com Statics Companion, students and instructors will find over 300 statics example problems for use in class or for extra practice outside of class with YourOtherTeacher.com's corresponding online statics streaming videos. The videos feature statics problems being solved in great detail with a voiceover, providing reinforcement for those students who need the extra help. In addition, perforated pages allow instructors to easily transfer problems to transparencies or create handouts. YourOtherTeacher.com offers a total of 40 courses, with a strong emphasis on math and engineering.

FEATURES

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- By using the coupon code within the text and accessing this course, students will find problems solved by an online instructor in a detailed, step-by-step, whiteboard video format.
- Your OtherTeacher.com is the only site that actually talks and demonstrates the concept as though the student is sitting in a classroom. Other sites require users to read their solutions off the screen or watch distracting computer animations.
- Great supplement to students who are struggling in class and need a little more instruction.
- Online lessons have quizzes, so a student can test their knowledge of the lesson that they just watched

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Dynamics

International Edition

NEW

MECHANICS FOR ENGINEERS, DYNAMICS

Fifth Edition

by Ferdinand P. Beer (deceased), and E. Russell Johnston, Jr.,
University of Connecticut

2008 (March 2007) / Hardcover / 928 pages

ISBN-13: 978-0-07-246477-1 / MHID: 0-07-246477-1

ISBN-13: 978-0-07-112165-1 / MHID: 0-07-112165-X [IE]

The first book published in the Beer and Johnston Series, *Mechanics for Engineers: Dynamics* is a scalar-based introductory dynamics text, ideally suited for engineering technology programs, providing first-rate treatment of rigid bodies without vector mechanics. This new edition provides an extensive selection of new problems and end-of-chapter summaries. The text brings the careful presentation of content, unmatched levels of accuracy, and attention to detail that have made Beer and Johnston texts the standard for excellence in engineering mechanics education.

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NEW

DYNAMICS LECTURE NOTES (YOT.COM)

by Jeff Jones, California Polytechnic State University

2008 (September 2006) / Softcover / 128 pages

ISBN: 978-0-07-331178-4 / MHID: 0-07-331178-2 (with access card)

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VECTOR MECHANICS FOR ENGINEERS: DYNAMICS Eighth Edition

by Ferdinand P Beer (deceased), E Russell Johnston, Jr., University of Connecticut, William E Clausen, Ohio State University, and Phillip J Cornwell, Rose-Hulman Inst Tech

2007

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(with Bookmark and OLC)

ISBN-13: 978-0-07-125875-3 / MHID: 0-07-125875-2
[SI Metric edition]

<http://www.mhhe.com/beerjohnston>

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SCHAUM'S OUTLINE OF ENGINEERING MECHANICS

Fifth Edition

by William McLean, Lafayette College; E. W. Nelson
1998 / 480 pages

ISBN-13: 978-0-07-046193-2 / MHID: 0-07-046193-7

Schaum's Publication

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Vectors. Operations with Forces. Resultants of Coplanar Force Systems. Resultants of Noncoplanar Force Systems. Equilibrium of Coplanar Force Systems. Equilibrium of Noncoplanar Force Systems. Trusses and Cables. Forces in Beams. Friction. First Moments and Centroids. Virtual Work. Kinematics of a Particle. Dynamics of a Particle. Kinematics of a Rigid Body in Plane Motion.

Strength Of Materials

International Edition

MECHANICS OF MATERIALS

Fourth Edition

by Ferdinand Beer (deceased), and E. Russell Johnston, Jr., and John T. DeWolf, University of Connecticut

2006 / 800 pages / Hardcover

ISBN-13: 978-0-07-310795-0 / MHID: 0-07-310795-6

ISBN-13: 978-0-07-124999-7 / MHID: 0-07-124999-0

[IE, SI Metric Edition]

<http://www.mhhe.com/beerjohnston>

For the past forty years Beer and Johnston have been the uncontested leaders in the teaching of undergraduate engineering mechanics. Their careful presentation of content, unmatched levels of accuracy, and attention to detail have made their texts the standard for excellence. The revision of their classic Mechanics of Materials features an updated art and photo program as well as numerous new and revised homework problems. The text's superior multimedia supplement package includes an extensive strength of materials Interactive Tutorial (created by George Staab and Brooks Breeden of The Ohio State University) that provides students with additional help on key concepts, as well as a custom website featuring animations, lecture powerpoints, and other online resources for both instructors and students.

NEW TO THIS EDITION

- Known for their accuracy and careful development, the 4th edition offers over 1600 homework problems. 30% of the homework problems are either new or revised for this edition.
- The text photo program will be expanded to include updated in-chapter photographs.
- The custom website now offers even more student and instructor resources including animations for each chapter, lecture powerpoints, course organization tools, image files and helpful weblinks.

FEATURES

- The pedagogical changes that made the 3rd Edition so successful are retained in the 4th edition, including: a review of statics and the use of free-body diagrams, a section introducing a problem-solving methodology, and a Fundamentals of Engineering (FE/EIT) Exam appendix.
- All users have access to a free Interactive Mechanics of Materials Tutorial featuring theoretical explanations coupled with examples and quizzes based directly on key concepts from the text.

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1 Introduction: Concept of Stress. 2 Stress and Strain: Axial Loading. 3 Torsion. 4 Pure Bending. 5 Analysis and Design of Beams for Bending. 6 Shearing Stresses In Beams and Thin-Walled Members. 7 Transformation of Stress and Strain. 8 Principal Stresses Under Given Loading Conditions. 9 Deflection of Beams. 10 Columns. 11 Energy Methods

SCHAUM'S OUTLINE OF STRENGTH OF MATERIALS

Fourth Edition

by William Nash, University of Massachusetts

1998 / 432 pages

ISBN-13: 978-0-07-046617-3 / MHID: 0-07-046617-3

Schaum's Publication

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Tension and Compression. Statically Indeterminate Force Systems Tension and Compression. Thin-Walled Pressure Vessels. Direct Shear Stresses. Torsion. Shearing Force and Bending Moment. Centroids, Moments of Inertia, and Products of Inertia of Plane Areas. Stresses in Beams. Elastic Deflection of Beams: Double-Integration Method. Elastic Deflection of Beams: Method of Singularity Functions. Statically Indeterminate Elastic Beams. Special Topics in Elastic Beam Theory. Plastic Deformations of Beams. Columns. Strain Energy Methods. Combined Stresses. Members Subject to Combined Loadings: Theories of Failure.

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