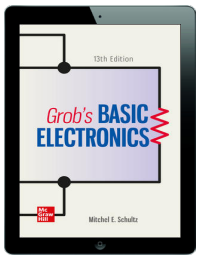
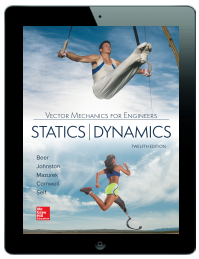
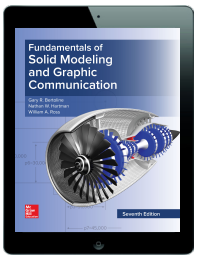
Mc Graw Hill connect®

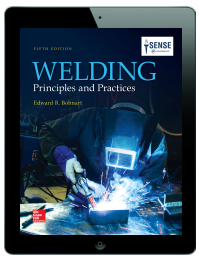
McGraw Hill Engineering Technology & the Trades

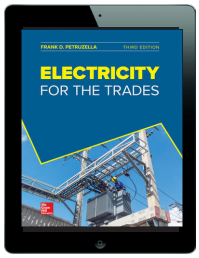
Powered by Connect Engineering, McGraw Hill's resources are designed to help students achieve success in a click. Connect is an easy-to-use online homework and learning platform that gives instructors access to engaging, assignable and assessable tools. All of these tools are tied to learning objectives and support student success.

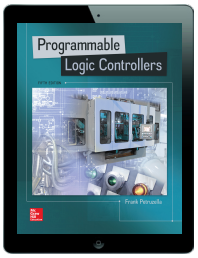


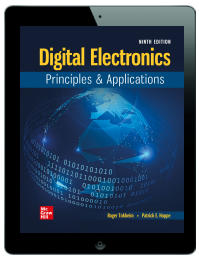












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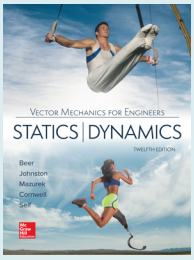
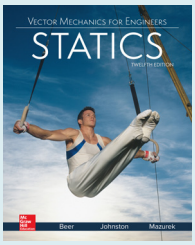
Engineering Trade & Technical Titles

Engineering Mechanics



Vector Mechanics for Engineers: Statics and Dynamics, 12e
Ferdinand Beer, E. Russell Johnston, Jr., Phillip Cornwell, & David Mazurek

This market leading title helps students analyze problems in a simple and logical manner and then apply basic principles to their solutions, encouraging a strong conceptual understanding. Offering a unified presentation of the principles of kinetics and a systematic problem-solving approach, the text has proven to be an effective teaching tool.



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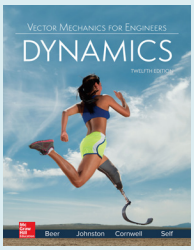

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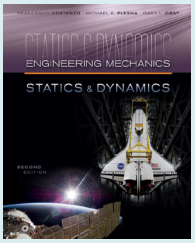
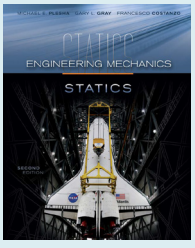
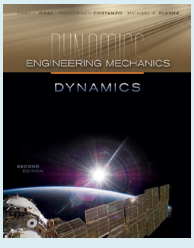


Engineering Mechanics: Statics and Dynamics, 2e *(3e publishing Spring 2022)*
Michael Plesha, Gary Gray, & Francesco Costanzo

This text is the Problem Solver's Approach for Tomorrow's Engineers. Based upon a great deal of classroom teaching experience, Plesha, Gray, & Costanzo provide a visually appealing learning framework to your students.

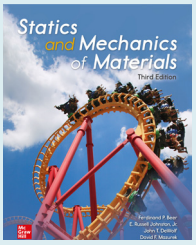


Engineering Mechanics: Statics, 2e
Michael Plesha
Gary Gray
Francesco Costanzo



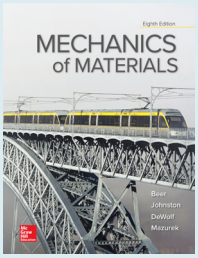
Engineering Mechanics: Dynamics, 2e
Michael Plesha
Gary Gray
Francesco Costanzo

Engineering Mechanics Cont.



Statics and Mechanics of Materials, 3e
Ferdinand Beer, E. Russell Johnston, Jr., John DeWolf, & David Mazurek

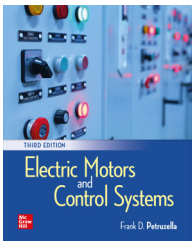
Maintaining the proven methodology and pedagogy of the Beer and Johnson series, this text combines the theory and application behind these two subjects into one cohesive text focusing on teaching students to analyze problems in a simple and logical manner and then, to use fundamental and well-understood principles in the solution.



Mechanics of Materials, 8e
Ferdinand Beer, E. Russell Johnston, Jr., John DeWolf, David Mazurek

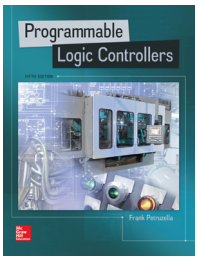
This text provides a presentation of subjects illustrated with engineering examples that students both understand and relate to theory and application. The tried and true methodology for presenting material gives students the best opportunity to succeed in this course. From the detailed examples, to the homework problems, to the carefully developed solutions manual, instructors and students can be confident the material is clearly explained and accurately represented.

Motors and Controllers



Electric Motors and Control Systems, 3e
Frank Petruzella

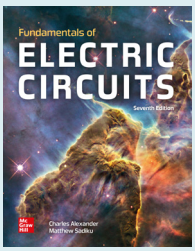
This text provides an overview of electric motor operation, selection, installation, and control and maintenance for a range of motor types and control systems. This edition presents the most up-to-date information, which reflects the current needs of the industry and includes coverage of how motors operate in conjunction with their associated control circuitry.



Programmable Logic Controllers, 5e *(6e publishing Spring 2022)*
Frank Petruzella

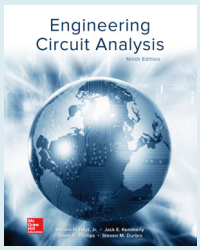
#1 text for the PLC course! The 6th edition continues to provide an up-to-date introduction to all aspects of PLC programming, installation, and maintaining procedures. The 6th edition offers two Simulation Lab Manuals: RSLogix 500 Controllers and PRLogix 5000 Controllers.

Electricity and Electronics



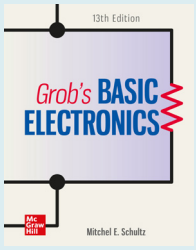
Fundamentals of Electric Circuits, 7e
Charles Alexander & Matthew Sadiku

Known to present circuit analysis in a manner that is clearer, more interesting, and easier to understand than other more traditional texts. A balance of theory, worked & extended examples, practice problems, and real-world applications, combined with over 580 new or changed homework problems complete this edition.



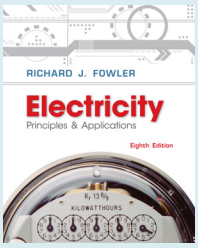
Engineering Circuit Analysis, 9e
William Hayt, Jack Kemmerly, Jamie Phillips, & Steven Durbin

The hallmark feature of this classic text is its focus on the student - it is written so that students may teach the science of circuit analysis to themselves. Terms are clearly defined when they are introduced, basic material appears toward the beginning of each chapter and is explained carefully and in detail, and numerical examples are used to introduce and suggest general results.



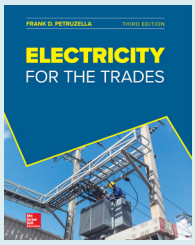
Grob's Basic Electronics, 13e
Mitchel Schultz

This text provides thorough, comprehensive coverage of the important fundamentals of DC and AC circuit theory. It also covers the most common electronic devices and their applications. Also offers the wildly popular Problems Manual and Experiments Manual.



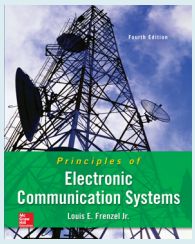
Electricity: Principles & Applications, 8e (*9e publishing Spring 2022, will be available in Connect)*
Richard Fowler

The eighth edition requires no prior knowledge of electrical theory and principles and allows students with limited math and reading skills to gain a clear understanding of electricity and electrical devices.



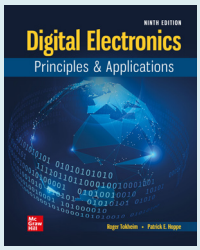
Electricity for the Trades, 3e
Frank Petruzella

This text sets the standard for textbooks on electrical training. Author Frank Petruzella is a tradesman with more than 30 years of experience. This text prepares students for specialization in the electrical trades or one of the many related trades that require a special understanding of electrical fundamentals.



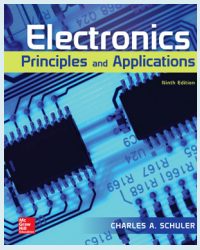
Principles of Electronic Communication Systems, 4e *(5e publishing Spring 2022)*
Louis Frenzel

This edition provides the most up-to-date survey available for students taking a first course in electronic communications. Requiring only basic algebra and trigonometry, this new edition is notable for its readability, learning features and numerous full-color photos and illustrations. A systems approach is used to cover state-of-the-art communications technologies, to best reflect current industry practice.



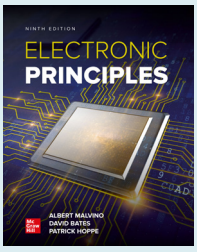
Digital Electronics: Principles & Applications, 9e
Roger Tokheim & Patrick Hoppe

This text is an easy-to-read introductory text for students new to the field of digital electronics. Providing entry-level knowledge and skills for a wide range of occupations is the goal of this textbook and its ancillary materials. Concepts are connected to practical applications, and a systems approach is followed that reflects current practice in industry. This concise and practical text can be used in any program needing a quick and readable overview of digital principles. Accompanying Experiments manual.



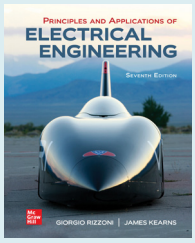
Electronics: Principles and Applications, 9e (*Connect coming in 2023)*
Charles Schuler

Requires no prior knowledge of electrical theory and principles. Written at a level that allows students with limited math and reading skills to gain a clear understanding, and the entry-level knowledge and skills for a wide range of occupations within electricity and electronics. Also offers wildly popular Experiments Manual.



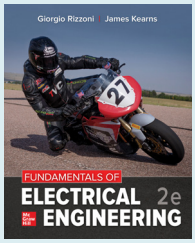
Electronic Principles, 9e
Albert Malvino, David Bates, & Patrick Hoppe

This edition continues its tradition as a clearly explained, in-depth introduction to the electronic principles of semiconductor devices, circuits and systems. Circuit operation and troubleshooting techniques are brought to life with Multisim circuit simulation files found in Connect. Subject matter includes updated semiconductor devices and systems including emerging wide bandgap power FETs and an introduction to Industry 4.0. An Experiments Manual, correlated with the text, offers a full array of hands-on labs.



Principles and Applications of Electrical Engineering, 7e
Giorgio Rizzoni & James Kearns

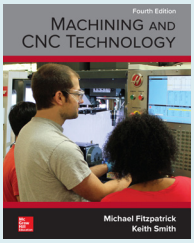
This text provides an overview of the electrical engineering discipline specifically geared toward non-electrical engineering students. The hallmark feature of the text is its use of practical applications to illustrate important principles. The applications come from every field of engineering and feature exciting technologies.



Fundamentals of Electrical Engineering, 2e
Giorgio Rizzoni & James Kearns

This text represents an effort to make the principles of electrical and computer engineering accessible to students in various engineering disciplines. The principal objective of the book is to present the fundamentals of electrical, electronic, and electromechanical engineering to an audience of engineering majors enrolled in introductory and more advanced or specialized electrical engineering courses.

Machining and Welding

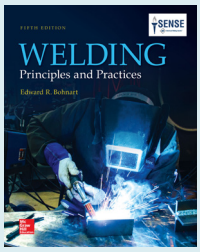


Machining and CNC Technology, 4e
Michael Fitzpatrick & Keith Smith

This text provides the latest approach to machine tool technology available. Students will learn basic modern integrated manufacturing, CNC systems, CAD/CAM and advanced technologies, and how to safely set up and run both CNC and manually operated machines. This is a how-to-do-it text.

Technology of Machine Tools, 8e (*Connect coming in 2023)*
Steve Krar, Arthur Gill, Peter Smid, & Robert J. Gerritsen

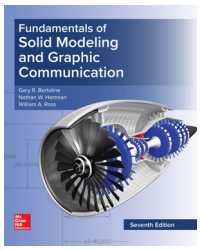
This edition provides state-of-the-art training for using machine tools in manufacturing technology, including up-to-date coverage of computer numerical control (CNC). It includes an overview of machine trades and career opportunities followed by theory and application. The text is structured to provide coverage of tools and measurement, machining tools and procedures, drilling and milling machines, computer-aided machining, and metallurgy.



Welding: Principles and Practices, 5e– Student Workbook Available (*Connect coming in 2023)*
Edward Bonhart

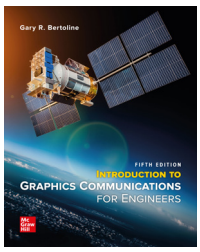
This text provides a course of instruction in welding, other joining processes, and cutting that will enable students to begin with the most elementary work and progressively study and practice each process until they are skilled. Both principles and practice are presented so that the student can combine the "why" and the "how" for complete understanding.

Fundamentals



Fundamentals of Solid Modeling and Graphic Communication, 7e
Gary Bertoline, Eric Wiebe, William Ross, & Nathan Hartman

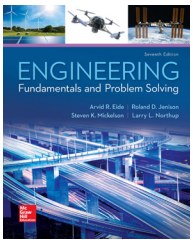
A thoroughly contemporary approach to teaching essential engineering graphics skills has made this text the leading textbook in introductory engineering graphics courses. The seventh edition continues to integrate design concepts and the use of 3D CAD modeling into its outstanding coverage of the basic visualization and sketching techniques that enable students to create and communicate graphic ideas effectively.



Introduction to Graphics Communications for Engineers, 5e
Gary Bertoline

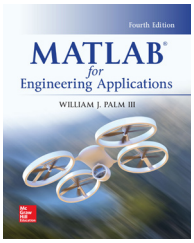
This is a workbook that teaches the fundamentals of sketching and engineering graphics principles in addition to improving the visualization abilities of students. The primary goal of this text is to assist students in learning the techniques and standards of communicating graphically so that design ideas can be clearly communicated and produced.

Fundamentals Cont.



Engineering Fundamentals and Problem Solving, 7e *(8e publishing Spring 2022)*
Arvid Eide, Roland Jenison, Larry Northup, & Steven Mickelson

This text presents a complete introduction into the engineering field and remains the most comprehensive textbook for an introductory engineering course. This text will help students develop the skills needed to solve open-ended problems in SI and customary units while presenting solutions in a logical manner. Students are introduced to subject areas, common to engineering disciplines, that require the application of fundamental engineering concepts.

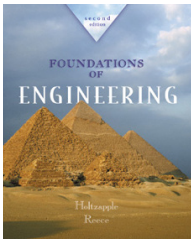


MATLAB for Engineering Applications, 4e *(5e publishing Spring 2022)*
William Palm III

MATLAB for Engineering Applications is a simple, concise book designed to be useful for beginners and to be kept as a reference. MATLAB is a globally available standard computational tool for engineers and scientists. The terminology, syntax, and the use of the programming language are well defined, and the organization of the material makes it easy to locate information and navigate through the textbook.

Spreadsheet Tools for Engineers Using Excel, 4e
Byron Gottfried

This practical text is a perfect fit for introductory engineering courses by successfully combining an introduction to Excel fundamentals with a clear presentation on how Excel can be used to solve common engineering problems. Spreadsheet Tools provides beginning engineering students with a strong foundation in problem solving using Excel.



Foundations of Engineering, 2e *(3e publishing Spring 2022)*
Mark Holtzapple & W. Dan Reece

This book gives freshman engineering students a solid foundation for all their future coursework. It provides an overview to the engineering profession and of the skills they will need to develop, as well as an introduction to fundamental engineering topics such as thermodynamics, rate processes, and Newton's laws. An important aspect of the book's approach is the method of Engineering Accounting, which casts the basic conservation laws (e.g., of energy or mass) as simple "accounting" procedures.

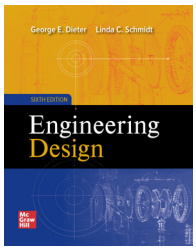
Technical Writing for Engineers & Scientists, 3e *(4e publishing Spring 2022)*
Leo Finkelstein

The focus of this text is to teach engineering students the skill of technical writing. The book is unique in that it gets to the point, uses practical outlines throughout, and shows students how to produce the most common technical documents step-by-step, in a manner that is fun and interesting to students. Each chapter has an end-of-chapter critique which allows students to implement what they have learned in the chapter.

Fundamentals Cont.

Shigley's Mechanical Engineering Design, 11e
Richard Budynas & Keith Nisbett

This text is intended for students beginning the study of mechanical engineering design. Students will find that the text inherently directs them into familiarity with both the basics of design decisions and the standards of industrial components. This edition maintains the well-designed approach that has made this book the standard in machine design for nearly 50 years.

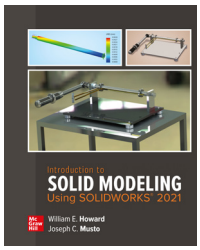


Engineering Design, 6e
George Dieter & Linda Schmidt

The sixth edition continues its tradition of being more oriented to material selection, design for manufacturing, and design for quality than other broad-based design texts. The text is intended to be used in a junior or senior engineering design course with an integrated, hands-on design project. Our intention is that students will consider this book to be a valuable part of their professional library.

Introduction to Mechatronics and Measurement Systems, 5e
David G. Alciatore & Micheal B. Histand

The fifth edition provides comprehensive and accessible coverage of the field of mechatronics for mechanical, electrical and aerospace engineering majors and presents a concise review of electrical circuits, solid-state devices, digital circuits, and motors.



Introduction to Solid Modeling Using SOLIDWORKS, 17e
(Annually Updated/Connect Unavailable/ Tutorial Videos Available)
William Howard & Joseph Musto

This text presents a tutorial-based introduction to solid modeling and the SOLIDWORKS software. Although the tutorials can be followed by anyone interested in learning the software, it is geared toward freshman engineering students interested in engineering.

What is Connect?

Connect is a course management and adaptive learning solution that enhances your unique voice and teaching style. Its flexibility allows you to create, edit, upload, share, and adjust materials to meet your needs. Connect also integrates with the three major learning management systems: Blackboard, D2L, and Canvas. We work to give you and your students access to registration, attendance, assignments, grades, and course resources in real time, in one location.

Support at Every Step

- Seamless LMS integration
- Training
- In-product help and tutorials
- 1:1 or group help

Robust Analytics & Reporting

- Easy-to-read reports
- Individual and class performance reports
- Auto grading

Quality Content & Learning Resources

- Remote proctoring
- eBooks available offline
- Easy course sharing
- Lecture capture

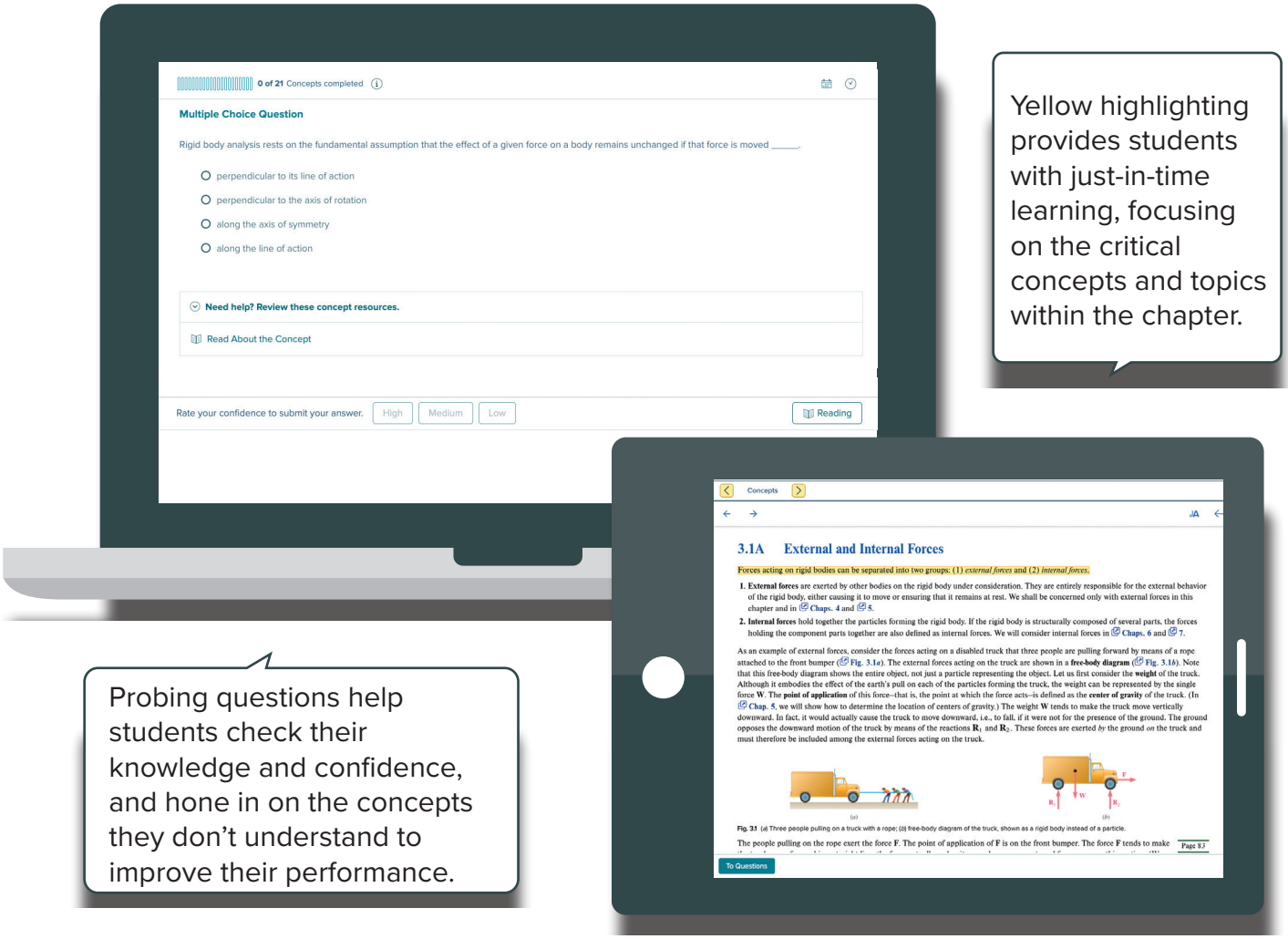
Homework & Adaptive Learning

- Curated question banks, including lab experiments results
- SmartBook 2.0–Adaptive Reading Assignments:
  - Rubrics to help efficiently grade lab and workbooks
- Time-saving tools
- Customized to individual needs
- Algorithmic questions

> Connect provides a convenient way for students to complete and turn in homework. It helps me organize my assignments. It also helps me make sure students are reading the textbook. I was able to spend class time on problem solving techniques.
>
> –Statics and Dynamics instructor, Black Hawk College

What is SmartBook?

Available within McGraw Hill Connect, SmartBook® makes study time as productive and efficient as possible. It identifies and closes knowledge gaps through a continually-adapting reading experience. The student's knowledge and self-reported confidence enables SmartBook to provide each student with long-term retention solutions. Focusing on closing knowledge gaps and long-term retention ensures that every minute spent with SmartBook is returned to the student as a value-added minute.



Yellow highlighting provides students with just-in-time learning, focusing on the critical concepts and topics within the chapter.

Probing questions help students check their knowledge and confidence, and hone in on the concepts they don't understand to improve their performance.

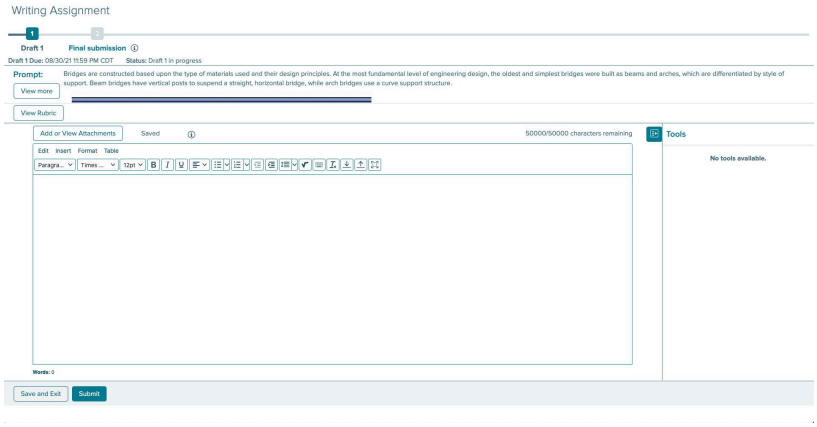
"Since using Connect, my students improved in reading and test taking. It has also reduced the cost of textbooks."

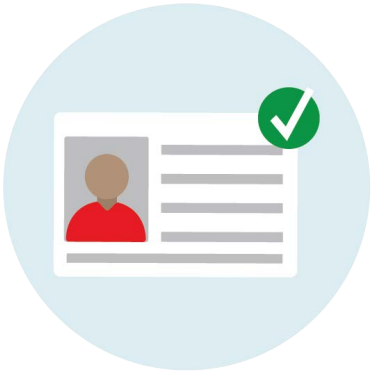
–Electronics Instructor, Schoolcraft College

Resources & Tools inside Connect

Writing Assignment (Rubric Tool)

This assignment type delivers a learning experience that helps students improve their written communication skills and conceptual understanding. As an instructor, you can assign, monitor, grade, and provide feedback on writing more efficiently. An excellent application of this is the submission of lab reports.



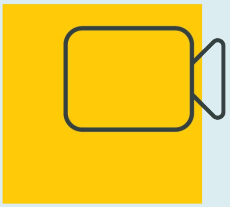


Proctorio

In partnership with Proctorio, McGraw Hill offers remote proctoring and browser locking capabilities in Connect to support academic integrity by preventing students from navigating away from a test environment, verifying students' identities, and monitoring them as they complete assessments.

Tegrity

Tegrity Campus is included in every Connect course. Tegrity Campus is a video capture solution that drives student engagement in traditional, flipped, hybrid, or fully online courses. Available as a tool within McGraw-Hill Connect, Tegrity Campus is easy to use for instructors and easy to access for students. With personalized bookmarking and notation tools, students can quickly and easily find the critical content they want to review.



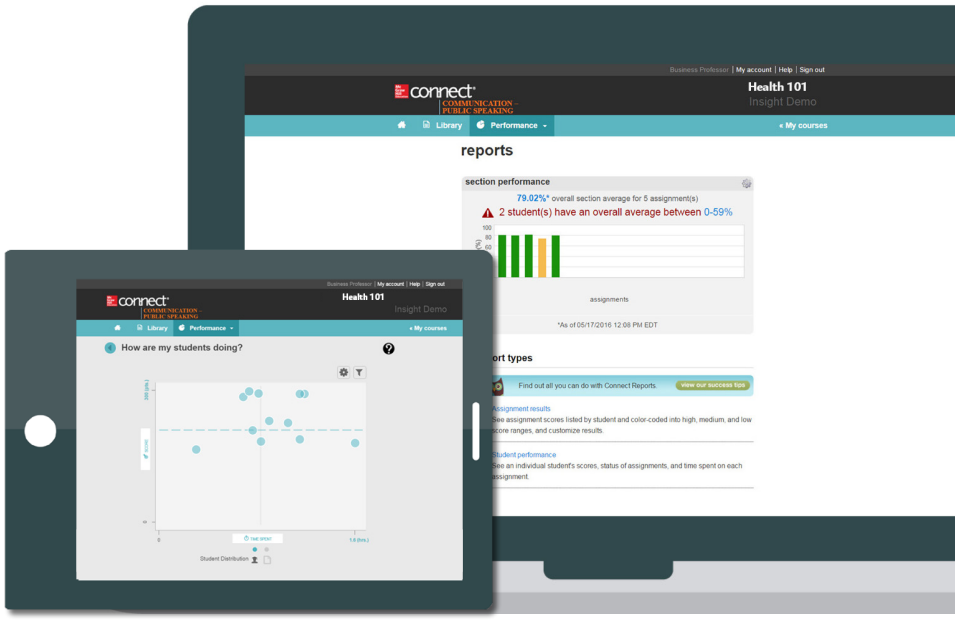
"I love the ease of building an entire course plan and the integration to Blackboard. I have seen a marked improvement in student success"

–PLC Instructor, Wake Technical Community College

What are Connect Reports?

Student Performance

Connect Reports keep instructors informed about how each student, section, and class is performing, allowing for more productive use of lecture and office hours. Instructors have the ability to assess and analyze students' progress on assignments throughout the term, seamlessly and with ease.



Support at Every Step

SupportAtEveryStep.com is your one stop shop to find contact information for our live support teams and key self-service resources for everything from decision-making resources, class prep, first-day-of-class, tips for the classroom and more. Whether you use the text alone or one of our award-winning digital courseware products, you'll find what you need at SupportAtEveryStep.com.

Just getting started? Want to take it to the next level? Your dedicated McGraw Hill Implementation Consultant can help you build your course, create assignments and set policies in Connect for Trade & Tech. Need help with reports or adjusting your course to improve outcomes? Click on "Courseware Consult" at SupportAtEveryStep.com and set up an appointment today.

Need a reality check? Having a direct line to an instructor who's been in your shoes can make all the difference. That's why we have over 600 faculty consultants across the country to share their experiences and provide personalized guidance.

How can we help? No matter your tech questions, the McGraw Hill Tech Support Group is ready to help with a searchable database of FAQs and live support for you and your students. Reach out at (800) 331.5094, or connect online by going to SupportAtEveryStep.com and selecting "Tech Support."

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