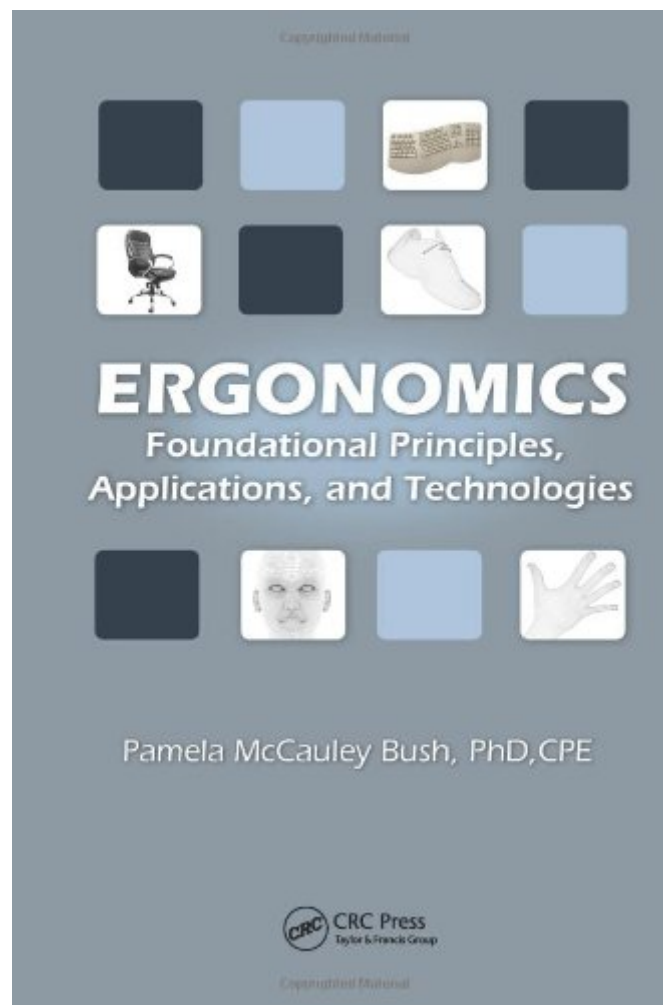


# Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) PDF



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Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) by Pamela McCauley-Bush ISBN 1439804451

A complete introduction to the field, **Ergonomics: Foundational Principles, Applications and Technologies** discusses scientific principles, research, applications, and emerging trends in technology. Covering the foundational principles and major topics in physical ergonomics, the book contains the necessary components of a quality ergonomics course, including a sample course

syllabus, PowerPoint slides for instructors and students, homework assignments, class projects, instructor's manual, suggested lab equipment, proposed lab exercises, and a student laboratory manual.

Based on the author's almost two decades of teaching, the text covers basic ergonomic principles from research and application perspectives. It includes hands-on laboratory activities to complement classroom instruction and cases studies that demonstrate application of ergonomic knowledge. Using an approach that highlights the physical over the cognitive, the author focuses less on kinesiology principles and more on applied kinesiology in ergonomics.

- Provides a basic explanation of the systems of the body to establish a foundation for understanding and consistently applying ergonomic principles
- Covers the human senses and the sensory process for each, including tools and techniques for assessing sensory impact
- Explains the functionality, relationship, and elements of the integrated roles of the muscular system and nervous system
- Introduces the study of anthropometrics and the principles that can be used to support anthropometric design, including data collection, calculation of statistics, and identification of appropriate data sources
- Examines the basic ergonomic principles of work place design and evaluation of hand tools
- Discusses the origin, nature, and impact of work-related musculoskeletal disorders (WMSDs) in the global community
- Includes coverage of the concepts of information processing, measurement of mental workload, and an introduction to ergonomic design of controls and displays

The book supplies everything required to teach the class. Upon completion of a course using this book, students will be prepared to apply the ergonomic knowledge in industry or continue to higher levels of study in the field. The text builds the foundation students and professionals need to understand and improve the environments, equipment, and systems with which humans interact in the workplace, recreational environment, and home.

### **Description of Instructors Manual**

Available upon course adoption, the instructor's manual contains resources to assist in quickly establishing a course layout, schedule, and associated documents. This resource genuinely makes the selection of the text a "turn-key" option for the professor to deliver a high-quality ergonomics course.

- Sample course syllabus
- Summary of suggested ergonomic lab equipment
- Sample course schedule
- Description of assignments such as student projects and more.

### **Description of Laboratory Manual**

Available for download from [www.crcpress.com](http://www.crcpress.com), the laboratory manual contains multiple laboratory and application assignments to give student a hands-on experience in applying ergonomic material taught in the classroom lectures. The manual has labs for each of the primary topics covered in the course as well as guidelines on how students are to conduct the laboratories and prepare lab reports. Numerous tables, equations, and examples are provided in the lab manual to facilitate

student understanding of the material. The use of the lab manual supports the instructor by providing tailored exercises for students to perform that are directly aligned with the textbook material. Assignments are also provided for students taking the course via distance learning or remote resources.

## **Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) Review**

This Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) book is not really ordinary book, you have it then the world is in your hands. The benefit you get by reading this book is actually information inside this reserve incredible fresh, you will get information which is getting deeper an individual read a lot of information you will get. This kind of Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) without we recognize teach the one who looking at it become critical in imagining and analyzing. Don't be worry Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) can bring any time you are and not make your tote space or bookshelves' grow to be full because you can have it inside your lovely laptop even cell phone. This Ergonomics: Foundational Principles, Applications, and Technologies (Ergonomics Design & Management Theory & Applications) having great arrangement in word and layout, so you will not really feel uninterested in reading.