Methods, Standards and Work Design
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**DESCRIPTION**

Faced with increasing global competition, every industry, business, and service organization is restructuring itself to operate more effectively. Cost-effectiveness and product reliability without excess capacity are the keys to successful activity in business, industry, and government, and these keys are the end results of methods engineering.

The 11th edition of Methods, Standards, and Work Design provides a practical, up-to-date college textbook describing engineering methods to measure, analyze, and design manual work. The text emphasizes both the manual components and the cognitive aspects of work, recognizing the gradual decline of the manufacturing sector and the growth of the service sector. The importance of ergonomics and work design as part of methods engineering is emphasized not only to increase productivity, but also to improve worker health and safety, and thus, company bottom-line costs.

In this day and age, the industrial engineer needs to consider both productivity issues and their effects on the health and safety of the worker. Most textbooks on the
market deal strictly with either the traditional elements of motion and time study or human factors and ergonomics. Few textbooks integrate both topics into one book.

What's New in the Eleventh Edition
A new Chapter 7 includes the cognitive aspects of work, information processing, and the human-computer interface.
New examples, problems, and case studies have been added, including ones showing applications with the service industry.
Chapters 10 and 11 of the 10th edition, focusing on Standard Data and Formula Construction, have been combined in this edition, since these functions can now be accomplished using one of the many software packages available on the market today.
A book website (www.mhhe.com/niebel-freivalds) offers instructor and student resources, including forms, practice problems, case studies, lab exercises, and student practice exams and solutions.
DesignTools Version 3.0, a ready-to-use software program for time study, work sampling, standard data, and costing, appears on the site.
QuikTS, a new software program available on the website, permits the collection of time study data on a palm device (m105 or higher). The data can be uploaded directly to the time study form on DesignTools for easy and accurate calculation of standard time.

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