Estimating in Building Construction

NINTH EDITION

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Pearson
To my father for encouraging me to get an education and my mother for her loving support. SP
The ninth edition continues to build on the strong foundation of the previous editions. The need for estimators to understand the theory behind quantification is critical and must be fully understood prior to performing any computerized estimating. This underlying premise has been one of the guiding principles that began with Mr. Dagostino and continues with the current author. This edition uses extensive examples and exercises to demonstrate the estimating methodology and the organization of the estimate. Estimating is an art that relies heavily on the judgment of the person performing the takeoff. A person’s estimating skills can only be developed with practice; therefore, the reader is encouraged to work the example problems and apply the skills taught in this book. Since the estimate is used throughout the project, the assumptions and methodologies assumed must be documented and organized so that subsequent users will have access to this knowledge.

NEW TO THIS EDITION

The intent of this revision is to expand the estimating material covered by this book and to bring other material in line with current industry practices. The following is a list of key changes and additions that have been made to this edition:

- Chapter 5 has been updated to Autodesk Revit 2017.
- The Social Security tax rates have been updated in Chapter 7.
- A chapter (Chapter 9) has been added covering specialty contractors.
- Chapter 15 (formerly Chapter 14), Thermal and Moisture Protection, has been rewritten.
- Chapter 17 (formerly Chapter 16), Finishes, has been rewritten.
- The text has been aligned to the student learning outcomes for major accreditation bodies.
- Labor and equipment costs have been updated.
- The appendices have been reorganized.

During the past few years, higher education has been moving to outcome-based learning, which requires accredited programs to measure their students’ ability to meet the required outcomes. Currently in the United States there are four accreditation standards for construction management and construction engineering programs, which are as follows: (1) American Council for Construction Education (ACCE); (2) ABET—Engineering Accreditation Commission, for construction engineering; (3) ABET—Engineering Technology, for construction engineering technology; and (4) ABET—Applied Science, for construction management. Although each of these standards are different, they all focus on three general outcomes, which can be summarized as follows. Construction management/engineering students should be able to:

- Prepare construction cost estimates.
- Effectively communicate in writing.
- Understand ethics as it relates to estimating.

This text has been aligned to these outcomes.

Feedback on this book can be submitted at stevenjpeterson9@gmail.com.

Steven Peterson
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