

**THE ELEMENTS OF  
MECHANICS OF MATERIALS;  
A TEXT FOR STUDENTS IN  
ENGINEERING COURSES**

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The elements of mechanics of materials; a text for students in engineering courses by C. E. Houghton

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**C. E. HOUGHTON**

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# THE ELEMENTS OF MECHANICS OF MATERIALS

A TEXT FOR  
STUDENTS IN ENGINEERING COURSES

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## PREFACE

THIS is not a treatise on the Mechanics of Materials. The efforts of Merriman, Burr, Lanza, and others cover the field so thoroughly that there is no present need of such a work.

It is designed to be an elementary text-book for students in the engineering courses in colleges and universities, where the time allotted to the subject does not exceed three or four recitations per week, for one half year, and where the course is preceded by college courses in mathematics, through integral calculus, mechanics, and physics.

The extreme mathematical treatment of the subject has been avoided, but where the use of higher mathematics leads to clearness they have been freely used.

As it is intended as a text-book, the general cases are discussed fully, leaving the student to derive the formulas for special cases as part of the regular problem work.

At the end of each chapter there are review questions covering the more important parts of the subjects discussed and problems illustrating the same. The solution of one problem of each type has been given to show the application of the general formulas.

The appendix contains tables giving the values of the engineering constants of materials and the formulas commonly used in design, in addition to the tables usually found in books of this character.

The notation has been made uniform with that of Merriman's works, so that his more complete treatise on the subject may be conveniently used as a reference book.

NEW YORK, January, 1909.

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