

Preface

This book is the text for the introductory course on Soil Mechanics at Delft University of Technology's Department of Civil Engineering, as I gave from 1980 until my retirement in 2002. It includes an introduction to the major principles and methods of soil mechanics, such as the analysis of stresses, deformations and stability. It also describes the most important methods of determining soil parameters, both in the laboratory and in situ, and in the appendices presents the basic principles of applied mechanics that are frequently used. The text has been developed on the basis of lectures at Delft by Profs. Nanninga, Langejan and De Josselin de Jong. The subdivision into chapters is such that one chapter can be treated in a single lecture, with sufficient time for demonstrations of soil behavior and some illustrative applications, including failures of soil structures.

Since 2001 a preliminary version of this book has been available on the internet, and some of its numerous users from all around the globe have offered their comments and suggestions for corrections and improvements. Many of these have been implemented in this version, which also includes references to other books and papers. Upon the suggestion of Prof. Emmanuel Detournay of the University of Minnesota, the problems at the end of chapters have been supplemented with worked examples as a further aid to students. Additional sets of problems (with answers) have been added to several chapters, and a number of demonstrations of soil testing and of soil properties can be downloaded from <http://geo.verruijt.net> and from <http://extras.springer.com>.

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