

INTRODUCTION TO FIELD METHODS FOR HYDROLOGIC AND ENVIRONMENTAL STUDIES

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PREFACE

This manual presents an introduction to the methods used for the collection of field data for hydrologic and environmental studies. It is divided into four chapters—surface water, ground water, water quality, and biology. The manual was compiled from a series of notes initially written for an upper-level undergraduate or graduate-level course at the University of Illinois, but could well serve as a primer for field operations for the professional or technician. The authors worked with UI civil engineering professors Albert Valocchi and Marcelo Garcia to design the semester-long course, which includes a weekly, 3-hour field laboratory.

The authors have borrowed liberally from various sources of information in compiling this manual, in some cases utilizing verbatim the text of other reports—most of which were authored by U.S. Geological Survey personnel. Very little attempt is made to reference those sources and reports within the body of the manual, but all pertinent references as well as supplementary materials are listed at the end of each chapter.

This manual is a work-in-progress and will evolve with time as the authors refine the course offered at the University of Illinois. The authors, along with University faculty, are planning the development of a site to be used as a field laboratory that will integrate all four components of the course. This may change the structure of the course and the order of material in the manual as the integrated field laboratory will create new opportunities for laboratory assignments. It is anticipated that sample homework problems and laboratory exercises will be included in future editions of this manual.

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