Writing Style and Standards in Undergraduate Engineering Reports

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Fourth Edition

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About This Guide

Writing Style and Standards in Undergraduate Engineering Reports, Fourth Edition, addresses two primary questions of inexperienced technical writers: "How should my report be written?" and "How do I present my experimental work appropriately using figures, tables, equations and spreadsheets?" The first two sections of this guide respond to these two questions.

The first section of this guide, *Writing Style in Undergraduate Engineering Reports*, speaks to the problems that students face as they draft their reports. Specifically, it outlines the norms of format in engineering reports, and it describes the way format is linked to the substance of the report. This section of the guide also provides a set of guides and example reports based on the writing requirements of the different laboratory courses at the Georgia Institute of Technology. It also includes an example of a report that would be written as part of an undergraduate research experience. These model reports are offered as examples of good reports, and they should be consulted when questions arise concerning format, style, or presentation of data. *Writing Style in Undergraduate Engineering Reports* also provides guidance on effective oral and visual communication with attention to slide presentations, posters, and tips on speaking effectively.

The second section of this guide, *Standards for Undergraduate Engineering Reports*, speaks to the problems students face as they present their work using graphical elements. This section of the guide explicitly outlines the norms for assembling and labeling figural and tabular information, provides examples of well-made figures and tables, and demonstrates how to integrate graphical elements into written documents. Detailed checklists help students determine whether their data are professionally presented. This section also guides students through navigating resources such as the engineering library and online research databases. *Standards for Undergraduate Engineering Reports* also reviews the norms of paragraph and sentence formation and other methods to achieve clear and logical writing in technical reports.

The third section of this guide, *Writing on the Job*, speaks to the kinds of tasks students face when they make the transition from classroom reporting to workplace communication, where problems are often open-ended and audiences cannot be assumed to be engineering professionals. This section of the guide concentrates on a design report and presentation for an open-ended project. This report is prepared to describe a technical project to non-technical readers, and this section highlights the visual and verbal steps the author has taken to accommodate these non-technical readers.

The Publisher would like to gratefully acknowledge that Chapter 2.7 on *Using the Engineering Library: How to Conduct Research in the Engineering Disciplines* and Chapter 2.15 on *Integrating Graphics into Written Documents* were written by Lisa Rosenstein, Ph.D. Dr. Rosenstein directs the Charles E. Gearing Program in Engineering Communications in the School of Civil and Environmental Engineering at the Georgia Institute of Technology. We would also like to thank Cole Keenum for his valuable advice on the chapter describing computer policies and common electronic resources.

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