

ABOUT THIS GUIDE

Writing Style and Communication Skills for Undergraduate Engineers, Fifth 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 and Communication Skills for Undergraduate Engineers* 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 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. New to this Fifth Edition is a chapter devoted to online courses and virtual meetings, with particular attention to Zoom and Microsoft Teams.

The new third section of this guide, *Writing to Land the Job*, offers step-by-step guidance to students on how to successfully navigate the job search and application process, from resume writing to interviewing skills. Several sample resumes are provided as well as effective means to communicate with prospective employers. For students interested in graduate school, this section provides guidance on how to effectively identify programs of interest and apply to them. Platforms, like LinkedIn, that have become essential in the job search and candidate presentation process are fully explored.

The fourth 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 the work of Professor Katie C. Russell, Senior Professor of Practice at Tulane University's School of Science and Engineering, to make the Fifth Edition a reality. Professor Russell's new Chapter 2.18, *Virtual Communication Platforms*, covering Zoom and Microsoft Teams, as well as the new Part III, *Writing to Land the Job*, covering resume writing, interviewing and LinkedIn, has made this Fifth Edition an invaluable addition to engineering students' collection of essential guidebooks.

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