

Document	Definition <sup>1</sup>	Minimum Requirements	Distinguishing Features
Lab Report	Lab reports present not only the data from an experiment or survey and the conclusions that can be drawn from that data, but also the theory, method, procedure, and equipment used.	Introduction, Background, Literature Review, Theory/Method/Procedure/Equipment, Observations/Data/Results, Conclusions, Implications and Further Research	-Should provide sufficient detail so that the reader can replicate procedure/experiment
Proposal	Offer or request to do a project plus supporting information necessary to gain approval to do the project.	Introduction, Background, Actual Proposal Statement, Description of the work product, Benefits and feasibility, Method, Qualifications and References, Schedule, Costs, Conclusion	-Sometimes used to convince the recipient that the work needs to be done and always used to convince that your team has the right skills -Outlines the scope of future work
Design Report	Written to introduce and document engineering design projects for an audience of other engineers interested in the functions and effectiveness of the design and management, and how it can be applied and commercialized.	Executive Summary, Introduction, Proposed Solution Overview, Proposed Solution Details (may include Product Assembly and Risk Analysis), Concept Validation, Conclusion	-Less focused on the method, more emphasis on the function, form, and decisions that led to final design

Tips for writing *any* kind of engineering writing document:

Topic	Avoid	Do
Provide facts	"The NR-48 tool is by far the best piece of equipment for our purposes."	"The NR-48 tool features multiple programmable transmitters and a five-station receiver array."
Present material logically	Starting specific then going to big picture	Move from general-to-specific
Make your ideas accessible	Create lengthy paragraphs	Use sub-headings and bullets to break up topics
Wordiness	"Never utilize utilize when you can use use"	Rely on simple, straightforward words to convey concepts
Expletives	"It is the result of these studies that" and "there is"	"results of the studies"

<sup>1</sup> Reference: Beer, D. F. and McMurrey, D. A. (2014) A Guide to Writing as an Engineer, John Wiley & Sons, Inc.