SPELL CHECK! PROOFREAD! Then do it again, because you have looked at the report so many times, you no longer see what is on the page, but what you think is on the page, and Spell Check can’t catch everything. Then ask someone else you trust, to proof it behind you. That is the minimum level of care expected of a college-level (or professional caliber) report and something you’ll have to do for the rest of your life. Deal with it.

There is no excuse for a misspelled word in these reports. None. Especially not terms common to the field, such as resistor, etc.

Remember homonyms? If you’re not absolutely certain, look it up! Make a list of them and post it over your computer until you’ve memorized them. They’re another fact of life that’s not going away.

Remember that writing formal lab reports is an exercise to prepare you for writing similar reports in the workplace. So do not write them for your instructor, as you did in previous, informal lab reports. Train yourself to write them for a “lay” audience, whose level of technical knowledge and expertise is unknown. Assume the reader doesn’t know everything you do about the concepts, the equipment or the procedure. Think of explaining what you did in the lab to your next-door neighbor. You don’t have to explain every detail or term, but you must break down and describe the steps you followed, how/why you followed them this way, if applicable, (i.e., A was connected to B to avoid overloading C) and what happened when you did. You can also apply this formula to each sentence, each paragraph, each section, of the report. If you supply all this information, in this order, whether you do so in one sentence or three, you cannot go wrong.

For the same reason, don’t assume the reader is familiar with all the acronyms you will use. Use the full term on first use. You can put the acronym after it, perhaps in parentheses. Thereafter, you can use the acronym throughout the report. This is a good rule to follow in all writing when you find yourself tempted to use an acronym.

If you are struggling with third person, past tense, remember that it requires passive voice and that means that the past tense verb will need what was probably described, way back in elementary school, as a “helping word”. In these lab reports, that “helping word” will nearly always be “was” or a form of it. “The circuit was connected.” “The measurements were recorded.”

No “parts” in lab reports. “Part” can mean a portion of a whole. It is also used informally to refer to components, which could lead to confusion in a lab report. What is usually meant by “part” in a lab report is actually a step, a stage or a procedure, in the process. Use those terms instead.

Avoid having inanimate objects DO or HAVE (possess) anything (i.e., “the circuit ‘had’ two power supplies” or “the second procedure found”). If you find these constructions
poppping up in your writing, it’s nearly always because the SUBJECT of the sentence is incorrect.

**WRITE DOWN THIS TIP AND POST IT OVER YOUR COMPUTER. IT IS THE MOST IMPORTANT AND HELPFUL ONE I CAN GIVE YOU TO AVOID OR CORRECT SYNTAX ERRORS:**

Study your sentence carefully to determine the correct subject. It SHOULD be the thing (usually a noun) you’re writing the sentence to discuss. **MOVE THE SUBJECT OF THE SENTENCE AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE SENTENCE.** This will (usually) force the rest of the sentence to fall into correct order and what you will end up with, is a simple, clear, declarative sentence. While this is not the most sophisticated style, if you put together a succession of clear, declarative sentences, you will end up with a (grammatically) correct report. You still have to worry about capitalization, spelling and punctuation.

**Example:** “The first part of the experiment focused on the DC operating characteristics of the emitter-bias circuit”. Incorrect and awkward. **DC operating characteristics** should be the subject of the sentence since that’s the “thing” you’re writing the sentence to talk about.

To correct this into a simple, declarative sentence, try: “The DC operating characteristics of the emitter-bias circuit were (pick a verb) explored, demonstrated, studied, etc., in the first procedure.”

Nothing is or ever should be, “done” in a lab report. It’s a vague, weak verb and too informal. Take the time and effort to find a more specific verb. “Performed” or “accomplished” will usually suffice.

For the same reason, avoid idioms such as “run” in formal reports. As in, “A DC analysis was “run”. While these are idioms and accepted in conversation, they’re not correct in formal writing. Train yourself to use more formal, businesslike and “scientific” language in reports. Instead of “swapping out” transistors or the resistors were “swapped”, use “replaced” or “reversed”, as in, “the positions of the resistors in the circuit were reversed.”

Do not confuse the figure with what is depicted in it. The transistors were not reversed in the **figure**, but in the **circuit**, etc., that’s **shown** in the figure. Using the two terms interchangeably is a common mistake. Don’t make it.

Another common mistake is the misuse of pronouns, particularly “this”. A pronoun can only substitute for or represent, one noun—a thing. That noun should either be the subject of the preceding sentence or the noun closest to the pronoun. If it’s not—if, for instance, the previous sentence summarizes an entire step or states a fact or characteristic, you cannot begin the next sentence with “this”. If there can be any confusion which noun a pronoun is replacing, repeat the correct noun.
Example: To demonstrate the instability of the circuit, two transistors were placed in the circuit, one at a time, and the collector-emitter quiescent voltage was measured. “This” was then used to find the quiescent collector current. “This” is incorrect here because the fact that the transistors were placed, etc., wasn’t used to find the quiescent collector current. Instead, the sentence should begin, “The collector-emitter quiescent voltage was used, or simply continue the first sentence “….the collector-emitter quiescent voltage was measured and used to find the quiescent collector current.”

Don’t waste time and words reporting what the lab manual required or that the next step required something to be done. Just describe the steps performed. It’s assumed you’re following directions or instructions and that they were performed in the order in which you describe. For that reason, “then” and “next” are only occasionally required, not with every new sentence!

Do not refer to information or other material in the lab manual, except, possibly, to state that specific information or values were supplied there. The reader has no access to the lab manual (remember, you’re not writing the report for the instructor), so references to it are pointless and confusing.

Don’t use the phrases “involved” or “dealt with” or “covered”. They’re weak, useless, bull*#@! expressions. Be more vigorous, more direct with your writing. Just say what you mean. Usually, in this case, that means get on with describing what was done, how and why, and what happened, instead of dancing around the point with phrases like these.