



# Electronics You Might Not Have Learned In College: Lesson 1 - The Electrical Toolbox

An Online Continuing Education Course for Engineers

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# Electronics You Might Not Have Learned In College: Lesson 1 - The Electrical Toolbox

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## Who Should Take This Course?

The “Technician’s Toolbox” is the beginning of the “**Electronics You Might Not Have Learned In College**” series, written for those who never needed to delve into electronics and the extensive world of electrical hardware because their profession is very specialized, and other experts are available when needed. Most **engineers, regardless of their specialty, must often communicate with other engineers that work in a completely different world.** Learning as much as possible about their world and language saves a lot of instruction time and, more importantly, can **save a lot of costly misunderstandings.**

Originally, this course was meant for non-electrical engineers who might have only had a little exposure to electronics. **Working in engineering without at least some familiarity with electricity is like cooking without knowing how to use a stove.** It can be done, but you must completely rely on others to do the work and know what is going on. Every engineering profession contains a complicated world filled with special tools and equipment. **Unfortunately, many University Engineering Curriculums don’t offer much instruction in the “ground level” electrical tools and methods that are generally left to the TRADE SCHOOLS.**

Depending on the specialized branch that engineers eventually choose, there may be few instances where they need to “get their hands dirty,” working with the actual hardware that is used to create what they have designed. Due to engineers’ technical nature and curiosity, many are “handymen” who know their way around a hardware store. However, even they might not have picked up enough knowledge to be able to communicate intelligently with Journeymen technicians who are working on their projects. Any Professional Engineer is naturally assumed to know everything about anything related to their area. Sadly, this is not always true. **The PE will understand many things that the technician will often know more about his specialized area.**

This lesson is intended to be a quick overview of the hardware side of electronics. It will inevitably be encountered in one form or another in the course of their profession.

Detailed training in the hardware side of electronics is a lot easier to understand than the theoretical side of electronics. This lesson presents only a small portion of the tools of the trade and methods that are used. As an analogy, it is a lot easier to understand what sparkplugs are.

### Introduction To This Course

This COURSE is divided into several individual lessons. Each lesson will be used to refer to a specific lesson. The term COURSE is used to refer to the entire group of lessons.

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instruction time that will be saved in the hardware side of electronics.

cal professional. This lesson is intended to introduce students to the hardware side of electronics. As an analogy, what sparkplugs are.

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