Considering the fact that you have only had one undergraduate course in analysis and will be taking an actual functional analysis class, I don't think you actually want to self-study functional analysis. It would be much more useful for you to bulk up on your linear algebra review your real analysis Functional analysis is, for a large part, linear algebra on a infinite dimensional vector space over the real or complex numbers. Having a good intuition from linear algebra is essential: you'll know what is reasonable to expect when the dimensional infinities can be controlled (by some sort of compactness), and when they cannot be controlled, what parts of the argument cannot possibly go wrong. A bit of real analysis is also helpful because a lot of topological notions are introduced in those books, and familiarity with them is necessary. Furthermore, notions involved in the normed/metric spaces, basic notions of convergence and compactness, and many such are used all the time in functional analysis. Therefore I think you will be better off reviewing the notes for your undergraduate analysis course (or going through Rudin's Principles of Mathematical Analysis) and studying some linear algebra (unfortunately I can't think of any good book to recommend there). $\begingroup$ Can someone give an example that would point out the difference between a function and a functional in a very simple way? $\endgroup$ 3 The modern technical definition of a functional is a function from a vector space into the scalar field. For example, finding the length of a vector is a (non-linear) functional, or taking a vector and returning the 3rd coordinate (relative to some basis) is a (linear) functional. But in a classical sense, functional is an antiquated term for a function that takes a function as input. For example, the function derivativeAt(p)(_) that takes a function f and returns f'(p) is a functional in the classical sense, as well as the function integralOver(a,b)(_) that takes a function f and returns the integral of f on [a, b]. Today, we'd call these higher-order functions in a Comp Sci setting, but in a Math setting we typically take to just calling them functions, or colloquially functionals in order to distinguish them from the other functions we are working with at the moment. I suspect that your statistics text might be using this classical version of the term colloquially.