In this paper we investigate $\lambda$-statistical convergence of sequences of functions in fuzzy 2-normed spaces (FTNS). In particular, following the line of recent work of Karakaya et al. vatan, we introduce the concepts of uniform $\lambda$-statistical convergence and pointwise $\lambda$-statistical convergence in the topology induced by fuzzy 2-normed spaces, and give some basic properties of these concepts.