In coding theory, the trade-off between information rate $R$ and error-correcting ability $\delta$ of a code is a central topic of study. Classical work by Gilbert and Varshamov has showed that with high probability, the minimum distance of a random linear code can achieve the G-V bound given by $R = 1 - H_2(\delta)$, where $H_2$ is the binary entropy function. In this work, we give a full characterization for the minimum distance of a random linear code by comparing it to the random code ensemble where every coordinate of a codeword are taking values uniformly in $\mathbb{F}_q$. 