This bachelor's thesis deals with the Girsanov theorem in discrete time, which has wide applications, for example in financial mathematics or filter theory. This theorem talks about the construction of a probability measure with respect to which a given process is a martingale up to a finite time. In this paper, Girsanov theorem is generalized to other types of processes and it is shown that these results correspond. Subsequently, a probability measure is constructed under which the entire process is a martingale. Finally, some sufficient conditions for absolute continuity of this new measure with respect to the original one are given.