Abstract: We extend the famous diophantine Frobenius problem to the case of polynomials over a field $k$. Similar to the classical problem, we show that the $n = 2$ case of the Frobenius problem for polynomials is easy to solve. In addition, we translate a few results from the Frobenius problem over $\mathbb{Z}$ to $k[t]$, discuss a few ways in which the classical problem differs from the one over a polynomial ring and mention a few ideas for future research on the Frobenius problem over polynomials. This talk is based on a joint work with R. Gondim and M. Rodriguez.