Let $p$ be a rational prime, $q > 1$ a $p$-power and $\varphi$ a non-constant irreducible polynomial in $\mathbb{F}_q[t]$. The notion of Drinfeld modular form is an analogue over $\mathbb{F}_q(t)$ of that of elliptic modular form. Numerical computations revealed some $\varphi$-adic structures of Drinfeld modular forms comparable to the elliptic analogue, while at present they are far less well understood than the elliptic case. In this talk, I will report on what we can say about congruences modulo $\varphi^n$ between Drinfeld modular forms and their slopes ($\varphi$-adic valuations of eigenvalues) for the Hecke operator at $\varphi$. (Received January 24, 2019)