Consider interactions beyond the Standard Model through the following Lagrangians,

$$\mathcal{L}_{\rm CC} = -2\sqrt{2}G_F\epsilon^{ff'X}_{\alpha\beta}\left(\bar{\nu}_\alpha\gamma^\mu P_L\ell_\beta\right)\left(\bar{f}'\gamma_\mu P_X f\right)$$
$$\mathcal{L}_{\rm NC} = -2\sqrt{2}G_F\epsilon^{fX}_{\alpha\beta}\left(\bar{\nu}_\alpha\gamma^\mu P_L\nu_\beta\right)\left(\bar{f}\gamma_\mu P_X f\right)\ ,$$

where CC denotes the charged current interaction with the matter field $f \neq f' \in \{u, d\}$, and NC denotes the neutral current interaction with $f \in \{e, u, d\}$.

References