Parametric equations for C are $x = 3t$, $y = t$, $z = 2t$, $0 \le t \le 1$. Then $\int_C xe^{yz}\,ds = \int_0^1 3te^{(t)(2t)}\sqrt{3^2 + 1^2 + 2^2}\,dt$ $= \sqrt{14}\int_0^1 3te^{2t^2}\,dt = \sqrt{14}\left[\frac{3}{4}e^{2t^2}\right]_0^1 = \frac{3}{4}\sqrt{14}(e^2 - 1)$.