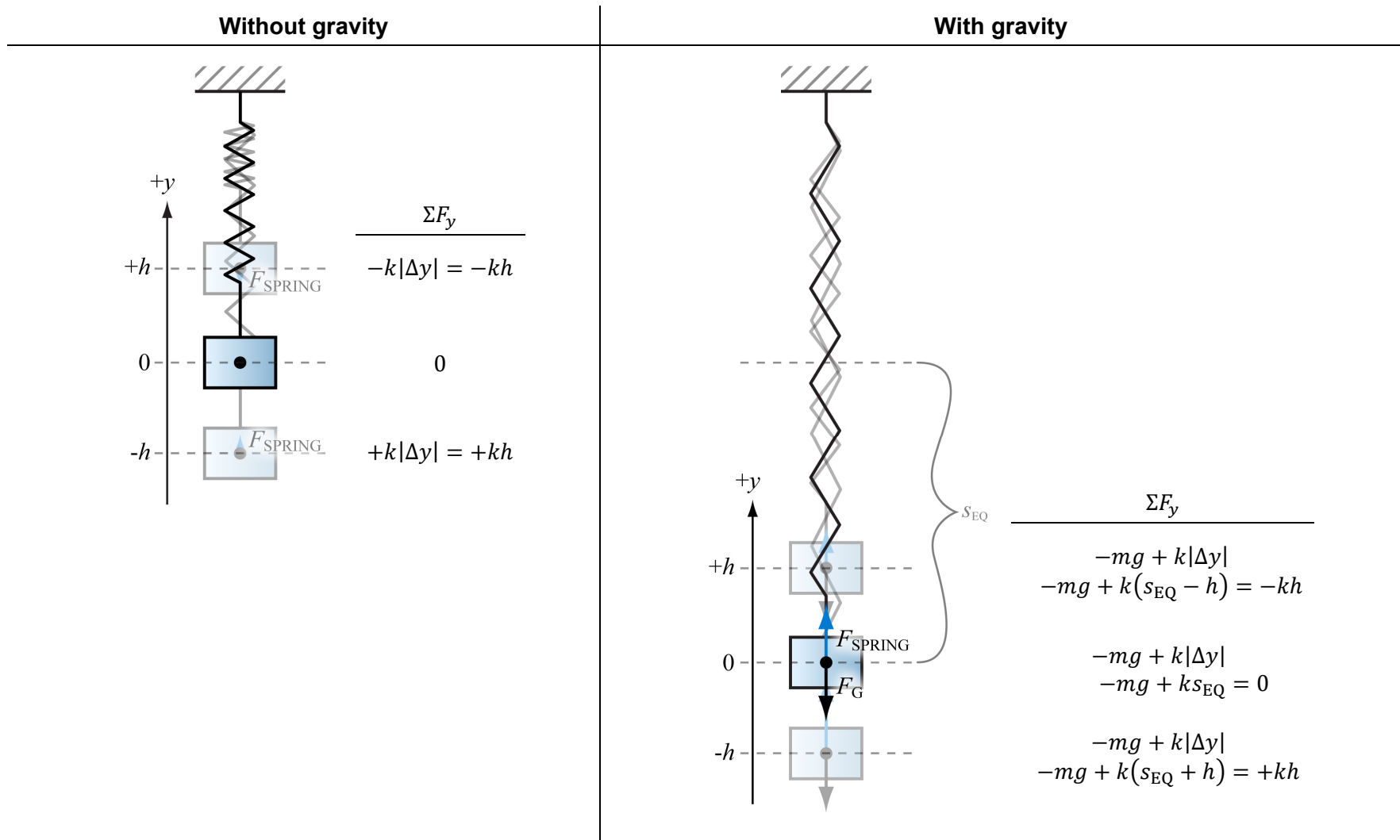


# “Ignoring” gravity for SHM of a mass-on-a-spring



Period  $T$  (thus, frequency  $f$ ) and graphs of  $KE$  and  $U_{SHM}$  as functions of time and position can be correctly obtained for a mass-on-a-spring system vertically suspended in a gravitational field by pretending that the same mass and spring are arranged vertically in the absence of a gravitational field.