The formula is taken from http://www.mide.com/products/slamstick/air-pressure-altitude-calculator.php



 = static pressure (pressure at sea level) [Pa]

 = standard temperature (temperature at sea level) [K]

T = temperature at elevation h [K]

 = standard temperature lapse rate [K/m] = -0.0065 [K/m]

 = height about sea level [m]

 = height at the bottom of atmospheric layer [m]; assumed = 0

 = universal gas constant = 8.31432 

 = gravitational acceleration constant = 9.80665

 = molar mass of Earth’s air = 0.0289644 [kg/mol]

From Wikipedia (https://en.wikipedia.org/wiki/Lapse\_rate)

The **lapse rate** is defined as the rate at which atmospheric temperature decreases with increase in altitude. The average atmospheric lapse rate results in a temperature decrease of 6.4C°/km

Tb = T + 6.4\*(.000\*h) = T + .00064h