Nomenclature

σ_x	Normal stress in the x direction, see equation (2)
c	Local y-coordinates of the beam cross section area, see equation (2)
E	Young's modulus, see equation (1)
I_y	Moment of inertia about the y-axis, see equation (1)
M	Internal moment, see equation (1)
y	Deflection of beam, see equation (1)

Answer

A (almost) fundamental relationship in mechanics of materials is shown in Equation 1.

$$EI_y y'' = M \tag{1}$$

Like I told you before, Equation 1 is only valid for small angle deflection. Be careful with this fact. So, if you know $y(x)$, you can produce the internal moment. From this internal moment, you can use

$$\sigma_x(x) = \frac{M(x)c}{I_y} \tag{2}$$

With Equation 2, you need to make sure your origin is placed at the centroid of the cross section of the beam.