MEC-7010 Post graduate course
Introduction to higher-order continuum models

1. exercise

1. Starting from the balance equation of momentum derive the equations of motion for a straight bar loaded by an axial force density f and by normal forces N_0 and N_L at both ends. The length of the bar is L.

2. Starting from the balance equations of momentum and moment of momentum, derive the equations of motion for a straight beam loaded by an transverse force density q and by shear forces Q_0, Q_L and bending moments M_0 and M_L at its ends. The length of the bar is L.

Return at latest 4.4.2013