

FCE 164: Applied Mathematics IB Course Description

The course covers the following key areas; Momentum and Energy: Momentum, Impulse; conservation of momentum. Energy, conservation of energy; energy/work principle, power. Angular momentum of rigid bodies. Simple Harmonic Motion: Hookes Law, simple harmonic motion, motion in a circle with variable angular velocity. Elementary Statistics: Population and sample, raw data, classification. Principles of data tabulation, graphical representation of data. Average, mean, median, mode, spread, range, quartiles, percentiles, standard deviation. Sample spaces, probability. Discrete distribution; binomial, poissons. Introduction to normal distribution.