

# PHYS 2005 CLASSICAL PHYSICS AND ADVANCED TECHNOLOGIES

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**Legacy Code** 301393

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## **Student Contribution Band**

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## **Assumed Knowledge**

Introductory mechanics: Newton's laws, work, conservation of energy and momentum. Introductory Electrostatics: Electric forces and Coulomb's law; DC electricity, voltage, current, resistance, Ohm's law, electric power, circuit laws. Introduction to Magnetic fields: production by magnets & currents, magnetic forces on currents & charges; Induced EMF, Faraday's law and electrical generators; AC current & voltage, peak & rms values, capacitance and inductance.