

SYLLABUS :-

Prerequisites: AE31003

3 - 0 - 0: 3 Credits Generalized three-dimensional equations of conservation with real gas effects, simplified forms in ideal cases, Bernoulli's equation for compressible flow; One dimensional steady gas dynamics: Flow through nozzles and diffusers, formation of normal shocks, theory of normal and oblique shocks, shock polar, expansion waves, wave interaction, Rayleigh and Fanno lines, One-dimensional unsteady gas dynamics; piston analogy, linearized shock tube, Riemann invariants, moving shock waves; Methods of characteristics and design of nozzles; experimental methods and measurement techniques.