1.	Title of the course	**AE 705/152/153M Introduction to Flight**
2.	Credit Structure	**2-1-0-6**
3.	Prerequisite	Nil
4.	Course Content	Nomenclature of aircraft components. Properties of atmosphere: ISA, IRA, Pressure altitude, Altimeter; Aircraft speeds TAS, EAS, CAS, IAS. Basic aerodynamics: Streamlines, steady fluid motion, incompressible flow, Bernoulli's equation, Mach number, Pressure and airspeed measurement, Boundary layer, Reynolds number, Laminar and Turbulent flow. Airfoils and Wings: Pressure coefficient and lift calculation, Critical Mach number, Wave drag, Finite wings, Induced drag, Swept wings, Types of Powerplant for aerospace vehicles, Thrust/Power and fuel flow variation with altitude & velocity. Aircraft Performance: Steady level flight, Altitude effects, Absolute ceiling, Steady climbing flight, Energy methods, Range and Endurance, Sustained level turn, Pull-up, V-n diagram, Take-off and landing. Longitudinal static stability and control, Neutral point.
5.	Texts/References	1. J. D. Anderson, Introduction to Flight, McGraw Hill 1989 2. J. F. Hale, Introduction to Aircraft Performance, Selection and Design, John Wiley, 1984 3. R. H. Barnard and D. R. Philpot, Aircraft Flight, Longman, 1989