

Calendar		
Weeks	Topics	
1	Introduction to Aerodynamics, Aerodynamic forces and moments	
2	Aerodynamic forces and moments, Center of pressure	
3	Similarity, Dimensional analysis	
4	Governing equations of aerodynamics	
5	Substantial derivative	
6	Circulation, stream function and velocity potential	
7	Bernoulli's equation, Conditions for irrotationality and incompressibility	
8	Fundamentals of 2-D potential flows and source panel method	
9	Kutta-Joukowski theorem	
10	Kutta condition, Kelvin's circulation theorem	
11	Thin airfoil theory and Vortex panel method	
12	Modern high-lift airfoil	
13	Downwash and Induced drag	
14	Plandtl's lifting line theory	
15	Delta wing aerodynamics	Exam