

GUJARAT TECHNOLOGICAL UNIVERSITY
B.E. SEMESTER : VIII
AERONAUTICAL ENGINEERING

Subject Name: **HELICOPTER ENGINEERING**

Sr. No.	Course Contents	Total Hrs
1.	Introduction Introducing VTOL, basic definitions and principles	03
2.	Rotor Configurations Chronological development	04
3.	Aerodynamics of hovering flight Definitions, Mechanics	08
4.	Aerodynamics of vertical flight Definitions, Mechanics	08
5.	Aerodynamics of forward flight Definitions, Mechanics	08
6.	Performance analysis Introduction	08
7.	Airfoils for rotor blades Basic requirements and tendencies	04
8.	Concepts for preliminary design in helicopters Conceptual design	08

Text Books:

1. Helicopter Performance, Stability, and Control by Raymond W Prouty

Reference Books:

1. Principles of Helicopter Dynamics by J Gordon Leishman
2. Helicopter Theory by Wayne Johnson