

COURSE CODE	COURSE TITLE	L	T	P	C
1152AE106	AIRCRAFT RULES AND REGULATIONS	3	0	0	3

**Course Category:**

Program Elective

**a. Preamble :**

This course deals with the Rules and Regulations of DGCA for the operation of aircraft - an airworthy.

**b. Prerequisite Courses:**

- Aircraft General Engineering and System Maintenance

**c. Course Educational Objectives :**

- To teach the civil air rules and regulations which are being followed by Directorate General of Civil Aviation.

**d. Course Outcomes :**

Upon the successful completion of the course, students will be able to:

CO Nos.	Course Outcomes	Knowledge Level (Based on revised Bloom's Taxonomy)
CO1	Explain the responsibilities of aircraft operator	K2
CO2	Describe the aircraft maintenance programme and defects investigation	K2
CO3	Illustrate the Airworthiness of aircraft and organization approval	K2
CO4	Explain the classification and requirements of AME license	K2
CO5	Describe about aircraft registration and markings	K2

**e. Correlation of COs with POs :**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	H		M			H	M	H				H
CO2	H		M			H	M	H				H
CO3	H		M			H	M	H				H
CO4	H		M			H	M	H				H
CO5	H		M			H	M	H				H

H- High; M-Medium; L-Low

**f. Course Content :**

**Unit – I C.A.R. SERIES ‘A’ & ‘B’ 8**

**C.A.R. SERIES ‘A’ – PROCEDURE FOR CIVIL AIR WORTHINESS REQUIREMENTS AND RESPONSIBILITY OPERATORS Vis-à-vis AIR WORTHINESS DIRECTORATE**  
Responsibilities of operators / owners- Procedure of CAR issue, amendments etc., Objectives and targets of airworthiness directorate; Airworthiness regulations and safety oversight of engineering activities of operators.

**C.A.R. SERIES ‘B’ – ISSUE APPROVAL OF COCKPIT CHECK LIST, MEL, CDL**  
Deficiency list (MEL & CDL); Preparation and use of cockpit checklist and emergency list.

**Unit – II C.A.R. SERIES ‘C’ & ‘D’ 7**

**C.A.R. SERIES ‘C’ – DEFECT RECORDING, MONITORING, INVESTIGATION AND REPORTING**

Defect recording, reporting, investigation, rectification and analysis; Flight report; Reporting and rectification of defects observed on aircraft; Analytical study of in-flight readings & recordings; Maintenance control by reliability Method.

**C.A.R. SERIES ‘D’ – AIRCRAFT MAINTENANCE PROGRAMMES**

Reliability Programmes (Engines); Aircraft maintenance programme & their approval; On condition maintenance of reciprocating engines; TBO – Revision programme; Maintenance of fuel and oil uplift and consumption records – Light aircraft engines; Fixing routine maintenance periods and component TBOs – Initial & revisions.

**Unit – III C.A.R. SERIES ‘E’ & ‘F’ 10**

**C.A.R. SERIES ‘E’ – APPROVAL OF ORGANISATIONS**

Approval of organizations in categories A, B, C, D, E, F, & G - Requirements of infrastructure at stations other than parent base.

**C.A.R. SERIES ‘F’ – AIR WORTHINESS AND CONTINUED AIR WORTHINESS**

Procedure relating to registration of aircraft; Procedure for issue / revalidation of Type Certificate of aircraft and its engines / propeller; Issue / revalidation of Certificate of Airworthiness; Requirements for renewal of Certificate of Airworthiness.

**Unit – IV C.A.R. SERIES ‘L’ & ‘M’ 8**

Issue of AME License, its classification and experience requirements, Mandatory Modifications / Inspections

**Unit – V C.A.R. SERIES ‘T’ & ‘X’ 12**

Flight testing of (Series) aircraft for issue of C of A; Flight testing of aircraft for which C of A had been previously issued. Registration Markings of aircraft; Weight and balance control of an aircraft; Provision of first aid kits & Physician’s kit in an aircraft; Use furnishing materials in an aircraft; Concessions; Aircraft log books; Document to be carried on board on Indian registered aircraft; Procedure for issue of tax permit; Procedure for issue of type approval of aircraft components and equipment including instruments.

**Total – 45 Periods**

**Text Books**

1. “Civil Aviation Requirements with latest Amendment (Section 2 Airworthiness)” – Published by DGCA, The English Book Store, 17-1, Connaught Circus, New Delhi 2000.
2. Aeronautical Information Circulars (relating to Airworthiness) from DGCA 2000.

**Reference**

1. “Aircraft Manual (India) Volume” – Latest Edition, The English Book Store, 17-1, Connaught Circus, New Delhi.
2. Advisory Circulars from DGCA 2003.