

# Srinivasan Engineering College, Perambalur

Even Semester 2015 – 2016

## COURSE HANDOUT

**SUBJECT CODE** : AE 2035  
**SUBJECT TITLE** : Air Traffic Control and Planning  
**COURSE INSTRUCTOR** : S RAJKUMAR  
**INSTRUCTOR-INCHARGE** : S RAJKUMAR

### OBJECTIVE

To study the procedure of the formation of aerodrome and its design and air traffic control.

### TEXT BOOK

1. AIP (India) Vol. I & II, “The English Book Store”, 17-1, Connaught Circus, New Delhi.

### REFERENCES

1. “Aircraft Manual (India) Volume I”, latest Edition – The English Book Store, 17-1, Connaught Circus, New Delhi.
2. “PANS – RAC – ICAO DOC 4444”, Latest Edition, The English Book Store, 17-1, Connaught Circus, New Delhi.

### Course Plan / Schedule

S.NO	TOPICS TO BE COVERED		REF.TO TEXT BOOK	NO.OF LECTURES
<b>UNIT 1</b>		<b>BASIC CONCEPTS</b>		
1	Objectives of ATS - Parts of ATC service	BB	NOTES	1
2	VFR & IFR operations	BB	NOTES	1
3	Classification of ATS air spaces	BB	NOTES	1
4	Altimeter setting procedures	PPT	NOTES	2
5	Establishment, designation and identification of units providing ATS	BB	NOTES	2
6	Division of responsibility of control	BB	NOTES	2
<b>UNIT 2</b>		<b>AIR TRAFFIC SERVICES</b>		
7	Area control service	BB	NOTES	1
8	Assignment of cruising levels minimum flight altitude ATS routes and significant points	BB	NOTES	2

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9	RNAV and RNP	BB	NOTES	1
10	Vertical, lateral and longitudinal separations based on time / distance	BB	NOTES	2
11	ATC clearances	BB	NOTES	2
12	Flight plans, position report	BB	NOTES	1
<b>UNIT 3</b>	<b>FLIGHT INFORMATION ALERTING SERVICES, COORDINATION, EMERGENCY PROCEDURES AND RULES OF THE AIR</b>			
13	Radar service	BB	NOTES	1
14	Identification procedures using primary / secondary radar	BB	NOTES	2
15	use of radar in area and approach control services	PPT	NOTES	2
16	assurance control and co-ordination between radar / non radar control	BB	NOTES	2
17	Flight information and advisory service	BB	NOTES	1
18	Co-ordination and emergency procedures	BB	NOTES	1
	Rules of the air	BB	NOTES	
<b>UNIT 4</b>	<b>AERODROME DATA, PHYSICAL CHARACTERISTICS AND OBSTACLE RESTRICTION</b>			
19	Aerodrome data	BB	NOTES	1
20	Aerodrome reference code	BB	NOTES	1
21	Aerodrome reference point	BB	NOTES	1
22	Aerodrome elevation	BB	NOTES	1
23	Aerodrome reference temperature	BB	NOTES	1
24	Instrument runway	BB	NOTES	1
25	length of primary / secondary runway	BB	NOTES	1
26	Width of runways	BB	NOTES	1

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27	Minimum distance between parallel runways etc.	BB	NOTES	1
<b>UNIT 5</b>	<b>VISUAL AIDS FOR NAVIGATION, VISUAL AIDS FOR DENOTING OBSTACLES EMERGENCY AND OTHER SERVICES</b>			
28	Visual aids for navigation Wind direction indicator	BB	NOTES	1
29	Landing direction indicator	BB	NOTES	1
30	Location and characteristics of signal area	BB	NOTES	1
31	Markings, & Various markings	PPT	NOTES	1
32	Aerodrome beacon, identification beacon	PPT	NOTES	1
33	approach lighting system and various lighting systems	PPT	NOTES	1
34	VASI & PAPI	BB	NOTES	1
35	Visual aids for denoting obstacles; object to be marked and lighter	BB	NOTES	1
36	Emergency and other services	BB	NOTES	1
<b>TOTAL HOURS</b>				<b>45</b>

### **OUTCOMES**

- Explain airspace standards and various parts of ATC. (K2)
- Utilize the flight plan and position report. (K2)
- Illustrate the primary and secondary radar. (K2)
- Summarize the flight information service and alerting service. (K2)
- List the basic terminology of aerodrome. (K2)
- Explain the physical characteristic of runway and visual navigation aid used in aerodrome. (K2)

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### Evaluation scheme

S No.	Evaluation Components	Duration	Date & Time	Venue
1	IAT- 1	90 min		To be announced later
2	IAT- 2	90 min		
3	IAT- 3	90 min		
4	Model Exam-1	3hr		
5	Model Exam-2	3hr		
6	Assignment	1 / month	July - Nov	

**Timings for chamber consultation:** Students should contact the Course Instructor in her/his chamber during lunch break.

**Notices:** All notices will be displayed on the Department Notice Board.

**H.O.D**

**Instructor-In-Charge  
S RAJKUMAR**

**Instructor  
S RAJKUMAR**