BHARATHIDASAN UNIVERSITY TIRUCHIRAPPALLI - 620 024.

B.Sc. AVIATION

CHOICE BASED CREDIT SYSTEM –

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (CBCS - LOCF)

(Applicable to the candidates admitted from the academic year 2023-24 onwards)

Eligibility: Maths & Physics +2 (Regular Stream)

(For the 2024-2025 batch, the Naan Mudhalvan scheme has been implemented in the 2nd semester)

Sem.	Part	Course	Title	Ins. Hrs.	Credit	Exam Hours	Int.	Ext.	Total
I	I	Language Course – I (Tamil $ / Other Languages + #)	Language I	6	3	3	25	75	100
	II	English Course – I	English - I	6	3	3	25	75	100
	III	Core Course – I (CC)	Familiarization of Aircraft	5	5	3	25	75	100
		Core Practical – I (CP)	Familiarization of Airport	4	4	3	40	60	100
		First Allied Course – I (AC)	Introduction to Physics	4	4	3	25	75	100
		First Allied Practical (AP)	Physics (Lab)	3	-	-	-	-	-
	IV	Value Education	Value Education	2	2	3	25	75	100
		TOTAL		**30**	**21**	**-**	**-**	**-**	**600**
II	I	Language Course – II (Tamil $ / Other Languages + #)		6	3	3	25	75	100
	II	English Course – II		6	3	3	25	75	100
	III	Core Course – II (CC)	Theory of Flight (Aerodynamics)	5	5	3	25	75	100
		Core Practical – II (CP)	Radio Telephony and Communications	4	4	3	40	60	100
		First Allied Practical (AP)	Physics (LAB)	3	2	3	40	60	100
		First Allied Course – II (AC)	Basic Electricity and Aircraft Electrical System (Avionics)	4	4	3	25	75	100
		Add on Course – I ##	Professional English – I	6*	4	3	25	75	100
	IV	Environmental Studies		2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Overview of English Language Communication	2	2	3	25	75	100
		TOTAL		**30**	**29**	**-**	**-**	**-**	**900**

	I	Language Course – III (Tamil $ / Other Languages + #)		6	3	3	25	75	100
	II	English Course – III		6	3	3	25	75	100
	III	Core Course – III (CC)	Piston Engines and Propellers	5	5	3	25	75	100
		Core Practical – III (CP)	ATC Communication and its Units	4	4	3	40	60	100
		Second Allied Course – I (AC)	Aviation Calculation and Numerical	4	4	3	25	75	100
		Second Allied Practical (AP)	Air Navigation	3	-	-	-	-	-
III		Add on Course – II ##	Professional English – II	6*	4	3	25	75	100
	IV	Non-Major Elective – I @ Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level or b) Special Tamil if Tamil language was studied up to 10th & 12th std.	Introduction to Airlines	2	2	3	25	75	100
		TOTAL		**30**	**25**	**-**	**-**	**-**	**700**
	I	Language Course –IV (Tamil $ / Other Languages + #)		6	3	3	25	75	100
	II	English Course – IV		6	3	3	25	75	100
	III	Core Course – IV (CC)	Meteorology	5	5	3	25	75	100
		Core Practical – IV (CP)	Hangar Workshop – I	4	4	3	40	60	100
		Second Allied Practical (AP)	Air Navigation	3	2	3	40	60	100
		Second Allied Course – II (AC)	Principles of Management	4	4	3	25	75	100
IV		Internship	Industrial Training Programme / Internship		2		20	80	100
	IV	Non-Major Elective II @ - Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level or b) Special Tamil if Tamil language was studied up to 10th & 12th std.	Radio Telephony	2	2	3	25	75	100
		TOTAL		**30**	**25**	**-**	**-**	**-**	**800**

V	III	Core Course –V (CC)	Aircraft Systems	5	5	3	25	75	100
		Core Course – VI(CC)	Flight Performance and Planning	5	5	3	25	75	100
		Core Course – VII(CC)	Air Regulation	5	5	3	25	75	100
		Core Practical –V (CP)	Hangar Workshop - II	4	4	3	40	60	100
		Major Based Elective – I (Any one)	Aviation Security	5	4	3	25	75	100
			Aero Engines						
	IV	Skill Based Elective I	Ticketing and Visa	4	2	3	25	75	100
		Soft Skills Development		2	2	3	25	75	100
		TOTAL		**30**	**27**	**-**	**-**	**-**	**700**
VI	III	Core Course – VIII (CC)	Aircraft Instruments	6	5	3	25	75	100
		Core Course – IX (CC)	Radio Aids	6	5	3	25	75	100
		Core Practical – VI(CP)	Flight Synthetic	4	4	3	40	60	100
		Major Based Elective – II (Any one)	Civil Aviation Requirements (CAR) and Management Systems	5	4	3	25	75	100
			Dangerous Goods Management						
		Project	Core Project	4	3	-	20	80	100
	IV	Skill Based Elective – II	Airport Ground Handling	4	2	3	25	75	100
	V	Extension Activities **		-	1	-	-	-	-
		Gender Studies		1	1	3	25	75	100
		TOTAL		**30**	**25**	**-**	**-**	**-**	**700**
		GRAND TOTAL		**180**	**152**	**-**	**-**	**-**	**4400**

$ For those who studied Tamil up to 10th +2 (Regular Stream).

+ Syllabus for other Languages should be on par with Tamil at degree level.

Those who studied Tamil up to 10th +2 but opt for other languages in degree level under Part- I should study special Tamil in Part – IV.

The Professional English – Four Streams Course is offered in the 2nd and 3rd Semester (only for 2022-2023 Batch) in all UG Courses. It will be taught apart from the Existing hours of teaching / additional hours of teaching (1 hour /day) as a 4 credit paper as an add on course on par with Major Paper and completion of the paper is must to continue his / her studies further. (As per G.O. No. 76, Higher Education (K2) Department dated: 18.07.2020).

* The Extra 6 hrs / cycle as per the G.O. 76/2020 will be utilized for the Add on Professional English Course.

@ NCC Course is one of the Choices in Non-Major Elective Course. Only the NCC cadets are eligible to choose this course. However, NCC Course is not a Compulsory Course for the NCC Cadets.

** Extension Activities shall be outside instruction hours.

@@ Naan Mudhalvan Scheme.

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SUMMARY OF CURRICULUM STRUCTURE OF UG PROGRAMMES

Sl. No.	Part	Types of the Courses	No. of Courses	No. of Credits	Marks
1.	I	Language Courses	4	12	400
2.	II	English Courses	4	12	400
3.		Core Courses	9	45	800
4.		Core Practical	6	24	700
5.		Allied Courses I & II	4	16	400
6.	III	Allied Practical	2	4	200
7.		Internship	1	2	100
8.		Major Based Elective Courses	2	8	200
9.		Add on Courses	2	8	200
10.		Project	1	3	100
11.		Non-Major Elective Courses (Practical)	2	4	200
12.		Skill Based Elective Courses	2	4	200
13.	IV	Soft Skills Development	1	2	100
14.		Value Education	1	2	100
15.		Environmental Studies	1	2	100
16.	V	Gender Studies	1	1	100
17.		Extension Activities	1	1	--
18.	VI	Naan Mudhalvan Scheme	1	2	100
		Total	**45**	**152**	**4400**

PROGRAM OUTCOMES – B.Sc. - AVIATION

On Successful completion of the Program the under grandaunt of aviation will be able to,

KNOWLEDGE

PO1 Exhibit knowledge on difference element used together for sale conduct of flight.

PO2 Comprehend knowledge on working principles of aviation tools, instruments and equipment's.

PO3 Exhibit advanced knowledge of functions and importance of various aviation department such as meteorology department and air traffic service department in streamlined flow of airline business

SKILLS

PO4 Demonstrate skill in handling & operating various aviation tools, instruments & equipment's.

PO5 Exhibit intra and interpersonal skills including wide knowledge of Indian and international air law.

PO6 Demonstrates soft communication skill that uplifts passenger handling.

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ATTITUDES

PO7 Demonstrate importance teamwork decision making and crew coordination.

ETHICAL AND SOCIAL VALUES

PO8 Practice airmanship and work together for the safety and well-being of coworker, uphold ethical and social values in personal and in work environment

PO9 Practice and exhibit time management and quick decision making thereby reducing unwanted delays as a byproduct reducing carbon emission and helping to make a green environment

PROGRAM SPECIFIC OUTCOMES Knowledge & Skills:

PSO1 Advanced knowledge about the various equipment's and instruments used in and around airport.

PSO2 Interpret aviation phraseology markings, difference lightings signage used in airport and decode meteorological reports and importance coded aviation information's.

PSO3 Evaluate plan construct a flight plan, gather all necessary information and convey it to the concerned person for successful conduct of flight from departure to destination.

PSO4 Get a clear knowledge to choose their field of interest in aviation sector.

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