

**B.Sc. STATISTICS****CHOICE BASED CREDIT SYSTEM –****LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (CBCS - LOCF)****(Applicable to the candidates admitted from the academic year 2022-23 onwards)****(NaanMudhalvan scheme has been implemented from 2nd to 5th semester for the 2023-2024 Batch)**

Sem.	Part	Course	Title	Ins. Hrs.	Credi	Exam Hours	Marks		Total
							Int.	Ext.	
I	I	Language Course – I (Tamil \$ / Other Languages + #)		6	3	3	25	75	100
	II	English Course – I		6	3	3	25	75	100
	III	Core Course – I (CC)	Descriptive Statistics	5	5	3	25	75	100
		Core Practical – I (CP)	Statistics Practical I	4	4	3	40	60	100
		First Allied Course – I (AC)		4	4	3	25	75	100
		First Allied Course - II (AC)		3	-	-	-	-	-
	IV	Value Education		2	2	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>21</b>	-	-	-	<b>600</b>
II	I	Language Course – II (Tamil \$ / Other Languages + #)		6	3	3	25	75	100
	II	English Course – II		4	3	3	25	75	100
	III	Core Course – II (CC)	Probability Theory	5	5	3	25	75	100
		Core Practical – II (CP)	Statistics Practical II	4	4	3	40	60	100
		First Allied Course– II (AC)		3	2	3	25	75	100
		First Allied Course – III (AC)		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	NaanMudhalvan Scheme (NMS) @@	Language Proficiency for Employability - Overview of English Language Communication	2	2	3	25	75	100	
<b>TOTAL</b>				<b>30</b>	<b>29</b>	-	-	-	<b>900</b>

III	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)	Theoretical Discrete Distributions	5	5	3	25	75	100	
		Core Practical – III (CP)	Statistics Practical III	4	4	3	40	60	100	
		Second Allied Course – I (AC)		4	4	3	25	75	100	
		Second Allied Practical (AP)		3	-	-	-	-	-	
		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 upto 10 <sup>th</sup> & 12 <sup>th</sup> std.		2	2	3	25	75	100	
	VI	NaanMudhalvan Scheme (NMS) @@	Digital Skills for Employability – Microsoft Digital Skills	-	2	3	25	75	100	
	<b>TOTAL</b>				<b>30</b>	<b>27</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>800</b>
IV	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)	Theoretical Continuous Distributions	5	5	3	25	75	100	
		Core Practical – IV (CP)	Statistics Practical IV	4	4	3	40	60	100	
		Second Allied Practical (AP)		3	2	3	40	60	100	
		Second Allied Course – II (AC)		4	4	3	25	75	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 10 <sup>th</sup> & 12 <sup>th</sup> std.		2	2	3	25	75	100	
	VI	NaanMudhalvan Scheme (NMS) @@	Power BI	-	2	3	25	75	100	
	<b>TOTAL</b>				<b>30</b>	<b>25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>800</b>

V	III	Core Course –V (CC)	Sampling Theory	5	5	3	25	75	100
		Core Course – VI (CC)	Statistical Inference I	5	5	3	25	75	100
		Core Course – VII(CC)	Design of Experiments	5	5	3	25	75	100
		Core Practical –V (CP)	Statistics Practical V	4	4	3	40	60	100
	IV	Major Based Elective – I (Any one)	1. Numerical Methods 2. Statistical Quality Control	5	4	3	25	75	100
		Skill Based Elective I	Demography	4	2	3	25	75	100
	VI	Soft Skills Development		2	2	3	25	75	100
		NaanMudhalvan Scheme (NMS) @@	Advanced Data Analytics & Visualization	-	2	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>29</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>800</b>
VI	III	Core Course – VIII (CC)	Statistical Inference II	6	5	3	25	75	100
		Core Course – IX (CC)	Operations Research	6	5	3	25	75	100
		Core Practical – VI(CP)	Statistics Practical VI	4	4	3	40	60	100
		Major Based Elective – II (Any one)	1. Applied Statistics 2. Regression Analysis	5	4	3	25	75	100
	IV	Project		4	3	-	20	80	100
		Skill Based Elective – II	Communication and Interpersonal Skills	4	2	3	25	75	100
	V	Extension Activities **		-	1	-	-	-	-
		Gender Studies		1	1	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>700</b>
<b>GRAND TOTAL</b>				<b>180</b>	<b>156</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4600</b>

### List of Allied Courses

#### First Allied Course

Mathematics

#### Second Allied Course

Computer Science

\$ For those who studied Tamil upto 10<sup>th</sup>+2 (Regular Stream).  
 + Syllabus for other Languages should be on par with Tamil at degree level.  
 #

Those who studied Tamil upto 10<sup>th</sup>+2 but opted 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 2<sup>nd</sup> and 3<sup>rd</sup> 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.

@@ NaanMudhalvan Scheme.

### 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.	III	Core Courses	8	40	800
4.		Core Practical	7	29	700
5.		Allied Courses I & II	4	16	400
6.		Allied Practical	2	4	200
7.		Major Based Elective Courses	2	8	200
8.		Add on Courses	2	8	200
9.		Project	1	3	100
10.	IV	Non-Major Elective Courses (Practical)	2	4	200
11.		Skill Based Elective Courses	2	4	200
12.		Soft Skills Development	1	2	100
13.		Value Education	1	2	100
14.		Environmental Studies	1	2	100
15.	V	Gender Studies	1	1	100
16.		Extension Activities	1	1	0
17.	VI	NaanMudhalvan Scheme	4	8	400
<b>Total</b>			<b>47</b>	<b>156</b>	<b>4600</b>

## **PROGRAMME OUTCOMES:**

The Courses in the Department of Statistics will enable the student

- To develop the skill to analyze complex statistical data coming from the various fields like industry, marketing, finance, agriculture and business.
- To implement data analysis strategies to develop efficient models for various theoretical postulations.
- Understand the intricacies of statistical testing and its applications in real life problems
- To develop, design and analyze experiments in empirical research.
- To develop soft skills and practicing professional ethics.
- Analyze every large data sets in the context of real-world problems and interpret results using data analytics.
- Understand the optimization and computational techniques for the solution of the real-life problems.

## **COURSE OUTCOMES:**

- Each course, in all the Programmes, has been designed and kept in accordance with the instructions of UGC and fulfills the requirements of the academic and industrial needs. By opting these courses students may be able to qualify the various esteemed competitive examinations like CSIR-NET, UGC-NET, GATE, ISS, IAS, PCS and many others.
- These programmes offered by the department are highly employable and enable the student to take positions in various Institutes/Universities/Industries for research and development and serve the society.

## **PROGRAM SPECIFIC OUTCOME:**

- The courses in the Department are redesigned to inculcate analytic and decision-making aptitude among the students. Having an advanced and upgraded knowledge of Statistics from both the theoretical and practical aspects, the students who pass out are well equipped in managing and analyzing various types of data. The education imparted in Statistics is aimed to inculcate statistical thinking in young minds for better future planning and welfare of society and to contribute to the society through excellence in statistical education and research.
- Students after completing these courses may be able to start their career with various Academia and Industry Interface. It may provide a platform to all the students to get experiential learning in this material world. The students may also be able to develop decision-making problems and suggest the best solution to attain the decision in R&D sector jobs.

\*\*\*\*\*