

# **SYLLABUS FOR M.A./M.SC. IN STATISTICS**

**Under Choice Based Credit System (CBCS)**  
**Effective from 2020-2022**



**The University of Burdwan**  
**Burdwan-713104**  
**West Bengal**

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**PROFILE**

**Department of Statistics, The University of Burdwan**

**Syllabus for M.Sc. Examination in Statistics, University of Burdwan**

**w.e.f 2020 – 2022**

**Semester- I**

Course code	Type	T/P	Name	Lect. Hr /week	Dur. of Exam (in H)	Marks			Credit
						I.A.	E.T	Total	
<a href="#">MSST101</a>	Core	T	<a href="#">Mathematical Analysis</a>	4	2	10	40	50	4
<a href="#">MSST102</a>	Core	T	<a href="#">Probability Theory</a>	4	2	10	40	50	4
<a href="#">MSST103</a>	Core	T	<a href="#">Statistical Methods &amp; Measure Theory</a>	4	2	10	40	50	4
<a href="#">MSST104</a>	Core	T	<a href="#">Optimization Techniques &amp; Statistical Quality Management</a>	4	2	10	40	50	4
<a href="#">MSST105</a>	Core	P	<a href="#">R Programming</a>	8	4	10	40	50	4
<a href="#">MSST106</a>	Core	P	<a href="#">Practical Basedon MSST102, 103 and 104</a>	8	4	10	40	50	4
						TOTAL			24

**Semester- II**

Course code	Type	T/P	Name	Lect. Hr /week	Dur. of Exam (inH)	Marks			Credit
						I.A.	E.T	Total	
<a href="#">MSST201</a>	Core	T	<a href="#">Sampling Distributions &amp; Inference - I</a>	4	2	10	40	50	4
<a href="#">MSST202</a>	Core	T	<a href="#">Multivariate Techniques</a>	4	2	10	40	50	4
<a href="#">MSST203</a>	Core	T	<a href="#">Linear Model &amp; Design of Experiments-I</a>	4	2	10	40	50	4
<a href="#">MSST204</a>	Core	T	<a href="#">Operations Research &amp; Reliability Theory</a>	4	2	10	40	50	4
<a href="#">MSST205</a>	Core	P	<a href="#">Practical Basedon MSST 201- 204</a>	8	4	10	40	50	4
<a href="#">MSST206</a>	Core	P	<a href="#">Python Programming</a>	8	4	10	40	50	4
						TOTAL			24

<a href="#"><u>MSST403-3</u></a>	DE	T	<a href="#"><u>Advanced Mathematical Statistics (Special- I)</u></a>	4	2	10	40	50	4
<a href="#"><u>MSST404-1</u></a>	DE	T	<a href="#"><u>Industrial Statistics (Special-II)</u></a>	4	2	10	40	50	4
<a href="#"><u>MSST404-2</u></a>	DE	T	<a href="#"><u>Biostatistics (Special-II)</u></a>	4	2	10	40	50	4
<a href="#"><u>MSST404-3</u></a>	DE	T	<a href="#"><u>Advanced Mathematical Statistics (Special-II)</u></a>	4	2	10	40	50	4
<a href="#"><u>MSST405</u></a>	Core	P	<a href="#"><u>Practical Basedon MSST401,402 and opted DEs</u></a>	8	4	10	40	50	4
<a href="#"><u>MSST406</u></a>	Core	P	<a href="#"><u>Project/ Term paper</u></a>	4	----	10	40	50	4
						TOTAL			24

T/P: Theory/Practical, DE: Discipline-centric Elective; GE: Generic elective

## MSST406

Course				Marks			Credit
Course code	Type	T/P	Name	I.A.	E.T	Total	
MSST406	Core	P	Project/ Term paper	10	40	50	4

### **Project /Term paper**

**50 Marks**

Project:- Topic selection in consultation with the teacher; literature search from different reference books and using internet search; typed write-up with proper tables, structures, figures and literature to be submitted (approximately 25-30 pages with 12 font size); seminar lecture on this topic to be delivered in presence of all the teachers and an external subject expert

### **Course Outcomes (COs):**

1. Conduct independent research on a chosen statistical topic.
2. Perform literature review, data analysis, and write a structured report.
3. Present findings through a seminar, demonstrating communication and presentation skills.
4. Develop problem-solving, critical thinking, and research capabilities.