CENTRAL UNIVERSITY OF SOUTH BIHAR

ORDINANCE AND REGULATIONS GOVERNING

M. Sc. (Statistics) Degree Programme
(Effective from the Academic Session 2018-2019)

Department of Statistics
School of Mathematics, Statistics and Computer Science

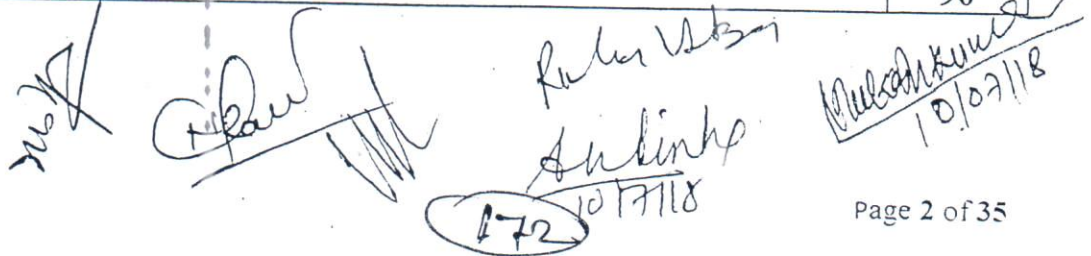Proposed Course Structure for M. Sc. (Statistics) Based on CBCS: Effective from July 2018 onwards [96 credits]

Course Code	Course Title	Credits
Semester-I		
MSSTS1001C04	Real Analysis and Linear Algebra	4
MSSTS1002C04	Distribution Theory and Nonparametric Statistics (**Open** to other Depts. of the School of Mathematics, Statistics & Computer Sc.)	4
MSSTS1003C04	Survey Sampling and National Development Statistics	4
MSSTS1004C04	Statistical Computing	4
MSSTS1005C04	Lab-I	4
MSCSC***/ MSMTH***	Elective –I (**from other** Depts. of the School of Mathematics, Statistics & Computer Sc.)	4
Total Credits		24
Semester-II		
MSSTS2001C04	Linear Models and Regression Analysis (**Open** to other Depts. of the School of Mathematics, Statistics & Computer Sc.)	4
MSSTS2002C04	Measure Theory and Probability	4
MSSTS2003C04	Statistical Inference	4
MSSTS2004C04	Lab-II	4
MSSTS2005E04/ MSSTS2006E04	Elective –II	4
MSCCS***/ MSMTH***	Elective-III (**from other** Depts. of the School of Mathematics, Statistics & Computer Sc.)	4
Total Credits		24
Semester-III		
MSSTS3001C04	Multivariate Analysis	4
MSSTS3002C04	Project[1] (Questionnaire Preparation and Data Collection)	4
MSSTS3003C04	Lab-III	4
MSSTS3004E04- MSSTS3008E04	Elective –IV	4
	Elective –V	4
	Elective –VI	4
Total Credits		24
Semester-IV		
MSSTS4001C04	Project[1] (Analysis and Report Writing)	4
MSSTS4002C04	Lab-IV	4
MSSTS4003E04- MSSTS4007E04	Elective-VII	4
	Elective-VIII	4
	Elective-IX	4
MSSTS4008E04- MSSTS4010E04-	Elective-X (SWAYAM)[2]	4
Total Credits		24
Grand Total		96

Semester-I Elective Basket Open to the Department of Statistics

Course Code	Course Title	Credits
	By the Dept. of Mathematics	
MSMTH***	Operations Research (OR)	4
	By the Dept. of Computer Science	
MSCSC***	Programming in C	4
MSCSC***	Introduction to IT	4
MSCSC***	Fundamentals of Computer	4
MSCSC***	Data Structure and Algorithm	4

Semester-II Elective Basket Open to the Department of Statistics

Course Code	Course Title	Credits
	By the Dept. of Statistics	
MSSTS2005E04	Business Analytics-I	4
MSSTS2006E04	Survival Analysis	4
	By the Dept. of Computer Science	
MSCSC***	Introduction to Database	4
MSCSC***	Image Processing	4
MSCSC***	Modelling and Simulation	4
MSCSC***	Artificial Intelligence	4
MSCSC***	Design and Analysis of Algorithm	4

Semester-III Elective Basket Open to the Department of Statistics

Course Code	Course Title	Credits
	By the Dept. of Statistics	
MSSTS3004E04	Stochastic Processes	4
MSSTS3005E04	Bayesian Inference	4
MSSTS3006E04	Business Analytics - II	4
MSSTS3007E04	Nonlinear Models	4
MSSTS3008E04	Spatial Data Analysis	4

Semester-IV-Elective Basket Open to the Department of Statistics

Course Code	Course Title	Credits
MSSTS4003E04	Design of Experiments	4
MSSTS4004E04	Categorical and Directional Data Analysis	4
MSSTS4005E04	Time Series and Forecasting	4
MSSTS4006E04	Statistical Processes and Quality Control	4
MSSTS4007E04	Demography	4

Semester-IV SWAYAM Courses[2]- Elective basket Open to the Department of Statistics

Course Code	Course Title	Credits
MSSTS4008E04	Distribution Free Methods	4
MSSTS4009E04	Econometric Analysis	4
MSSTS4010E04	Probability and Stochastic for Finance	4

Elective Basket Open to the Dept. of Mathematics and the Dept. of Computer Science

Course Code	Course Title	Credit
	Semester-I	
MSSTS1002C04	Distribution Theory and Nonparametric Statistics	4
MSSTS-***	Computer Intensive Statistical Methods-I*	4
	Semester-II	
MSSTS2001C04	Linear Models and Regression Analysis	4
MSSTS-***	Computer Intensive Statistical Methods-II*	4

Elective Basket Open to Other Schools

Course Code	Course Title	Credits
	Semester -IV	
MSSTS-***	Organizing and Visualizing Data*	4

* Open to all other departments.

List of Skill Based/Self Study Courses[3] (Non-Credit)

Course Code	Course Title	Credits
MSSTS-***	Latex	Non-credit
MSSTS-***	R-programming	Non-credit
MSSTS-***	Computer Based Data Graphing	Non-credit

[1] The filed survey under paper entitled Project in Semesters III & IV shall be conducted in villages.

[2] One of the SWAYAM courses (Statistics)- Distribution Free Methods, Econometric Analysis, and, Probability and Stochastic for Finance, may be opted by students as the Elective-X during Semester-IV

[3] The skill based /Self-study courses- Latex, R-programming and Computer Based Data Graphing have been designed to enhance students' skills in scientific typing and computer based statistical analysis and presentation.