



Ready for
Every Good Work

SACRED HEART COLLEGE (AUTONOMOUS)

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A Don Bosco Institution of Higher Education, Founded in 1951 * Affiliated to Thiruvalluvar University, Vellore * Autonomous since 1987

Accredited by NAAC (4th Cycle – under RAF) with CGPA of 3.31 / 4 at 'A+' Grade

Name of the Programme: MSc. Mathematics

S No	Title of the Paper	Course Code	Course Objectives	Course Outcomes	Relevance
1	CERTIFICATE COURSE - R LANGUAGE FOR STATISTICS	M847X	<ul style="list-style-type: none">To introduce to the students the novel applications of R language and to give them a hands on experience of working with data	<ul style="list-style-type: none">explain practical implications of expectation and variance and how they predict the shapes of distribution and density (mass) functions of a random variabledemonstrate capability to write programming codes for plotting different distributions.evaluate the independence of attributes and design of experiments.describe and apply probability distribution function and different types of distributive functions through R Language.know and understand about Tests of Hypothesis through R.	Local

2	ADVANCED BUSINESS STATISTICS FOR MANAGEMENT		<ul style="list-style-type: none"> To impart the knowledge to analyze the data using statistical techniques, such as hypothesis testing and regression estimation 	<ul style="list-style-type: none"> describe the concept of a random variable and its probability distributions. compute and interpret the correlation and regression analysis. analyze probability distribution (discrete and continuous) to a variety of problems in various diversified fields. draft various methods for testing of hypothesis. develop strategies using mathematical methods to solve real world problems 	Local
3	ADVANCED BUSINESS STATISTICS (FOR M.COM)	MBA134T	<ul style="list-style-type: none"> To apply statistical techniques for interpreting and drawing conclusion for business problems. 	<p>This course will enable the students to:</p> <ul style="list-style-type: none"> understand the concept of a random variable and its probability distributions. compute and interpret partial and multiple correlation. apply probability distribution (discrete and continuous) to a variety of problems in various diversified fields. discuss the different methods of testing of hypothesis 	Local
4	QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS (FOR M.COM)		<ul style="list-style-type: none"> To apply OR techniques for interpreting and drawing conclusion for business problems. 	<p>This course will enable the students to:</p> <ul style="list-style-type: none"> develop and solve LPP models using graphical and simplex method. have an in-depth study of Transportation and Assignment problems. understand the meaning of inventory control as well as various forms and functional role of inventory. understand and use PERT-CPM technique for project management and to construct network diagram. Time schedule Resource levelling with probability and cost consideration 	Local

5	CERTIFICATE PROGRAMME – LATEX FOR MATHEMATICS	M951X	<ul style="list-style-type: none"> To train students in the preparation of projects and dissertations using LaTeX 	<ul style="list-style-type: none"> define preamble for preparation of documents with paragraphs and sections understand basic typesetting mathematical expressions and numbered equations explain and demonstrate different packages and construct tables and insert figures in the document. find and resolve errors that occurs. compile the source file to get expected output form as required. 	Local
6	CERTIFICATE COURSE – MATHEMATICS FOR COMPETITIVE EXAMINATIONS – II (IDC)	M1048X	<ul style="list-style-type: none"> Quantitative Aptitude Tests evaluate numerical ability and problem solving skills of candidates. This test forms the major part of a number of important entrance exams for different fields. CAT, MAT, XAT, and GMAT and many other significant exams have Quantitative Aptitude as a major section. Many companies use it in their selection procedure. Topics that may be included in different exams are: 	<ul style="list-style-type: none"> make critique of quantitative information using proportional reasoning interpret and compare the statements for verification of truth. identify suitable methods for providing analytical reasoning. examining and estimating simple and compound interest solve problems and provide suitable graphical representation. 	Local