## Title: Introduction to SAS

Eligibility: Bachelor's degree in any Faculty

**Objectives:** To create understanding of the SAS

Development of Proficiency in English and Communication Skills

**Course Structure:** The course is equivalent to 4 credits. The course can be run in any of the semesters.

## S.NO. PRACTICAL THEORY DURATION Installation of the software Introduction to SAS, 1 2 Early history of SAS, Version history 2 Terminologies: 4 SAS programs , tables, rows, column / fields, SPSS, graphical interfaces, application programming interfaces, statements and procedures. 3 major parts of SAS: Data step, Procedure steps, and macro language. • File structure, database oriented fourth generation programming • languages (SQL focus), operating system, program loop. Data set, statistical analysis, macro code, imperative and procedural • programming SAS/IML component. Preprocessing runtime, general – purpose programming languages, • information technology. Components: SAS add in for Microsoft Office • Base SAS SAS/GRAPH • SAS/IML • • SAS/STAT 3 **BASE SAS:** 5 Introduction • DATA step ODS • SASr9 • • Universal Printing XML engine • • Preproduction Getting started with Predictive modeling 4 4 Introduction • • Opening SAS enterprise miner Creating a new project in SAS enterprise. ٠ Miner 5.2 • The SAS Enterprise Miner Window. • Creating a SAS Data Source • Creating a process flow diagram •

## Syllabus for SAS (2 CREDIT COURSE)

5	Regression Models	4
	• Introduction	
	• What types of models can be developed using	
	• The regression node	
	• An overview of some properties of the	
	Regression node	
	Business applications	
6	Comparison of Different models	4
	• Introduction	
	• Models for Binary targets : an example of	
	• Predicting attrition models for ordinal targets : an example of	
	predicting accident risk.	
	• Comparison of all three accident risk models.	
7	Customer Profitability	5
	Introduction	
	Acquisition cost	
	Cost of default	
	• Revenue	
	• Profit	
	• The optimum cut –off point	
	Alternative Scenarios of response and risk	
	Customer lifetime value	
	• Suggestions for extending results.	

## Syllabus for Soft Skills (2 CREDIT COURSE – 30 hours)

The syllabi should consist of practical and the theoretical aspects as well. For every component there shall be the practical and theoretical contents as well.

S.No.	PRACTICAL	THEORY	<b>Duration in hours</b>
1 1	Development of Proficiency in	Concepts of effective	9
]	English :	communication:	
	<ul> <li>Practice on Oral and spoken communication skill &amp; testing – voice &amp; accent, voice clarity, voice modulation &amp; intonation , word stress etc.</li> <li>Feedback and questioning Technique</li> <li>Objectiveness in Argument</li> <li>Development etiquettes and manners</li> <li>Study of different pictorial expression of non-verbal communication and its analysis</li> </ul>	<ul> <li>Components of effective communication</li> <li>Communication process and handling them</li> <li>KISS (Keep it short and sweet) in communication – Composing effective messages.</li> <li>Non – Verbal Communication : its importance and nuances : Facial Expression , Posture , Gesture , Eye contact, appearance (dress code ).</li> </ul>	

2	Written Communication SkillPractice for:• Correction of errors• Making of Sentences• Paragraph Writing• Leave Application and simple letter writing	<ul> <li>Grammatical use:</li> <li>Punctuation</li> <li>Meaning &amp; opposites</li> <li>Real Life conversations</li> <li>Vocabulary building</li> </ul>	6
3	<ul> <li>Presentation Skill practice</li> <li>Preparing in presentation</li> <li>Delivery of presentation</li> </ul>	Conceptof4methodforpresentation6•Prepara6tion & introduction•Presentation•Evaluation / feedback•Summarization / Conclusion	6
4	<ul> <li>Team Building / Coordination Skills</li> <li>Team Building Practices through group exercises , team task / role play</li> <li>Ability to mixing &amp; accommodation</li> <li>Ability to work together</li> </ul>	<ul><li>Concept of</li><li>Group</li><li>Group Dynamics</li><li>Team building</li></ul>	6
5	Telecommunication Skills• Tele – etiquette• Receiving Calls• Transferring calls• Taking Message/ Voice Mails• Making Outgoing Calls• Receiving Fax	<ul> <li>Electronic Communication concept</li> <li>Working principle of Mini exchange and its features and facilities.</li> </ul>	3

NOTE: Suggestion is to open a common film club for all the departments, where the movie can be displayed at fixed time and which shall cost minimal charges from the viewers.

**Methodology:** Lectures supplemented with case studies that may include visits.

**Assessment:** Final assessment by written and group discussion. Skill based assessment will be as per the case study.