

## COURSE OBJECTIVE AND LEARNING OUTCOME

### M.Sc.(INFORMATION TECHNOLOGY) SEMESTER I

#### COURSE: PSIT102 DATA SCIENCE

S.No	Learning Objective	Learning Outcomes
1.	To develop in depth understanding of the key technologies in data science and business analytics: data mining, machine learning, visualization techniques, predictive modeling, and statistics	Ability to identify the characteristics of datasets and compare the trivial data and big data for various applications
2.	To develop the ability for problem analysis and decision-making	Ability to select and implement machine learning techniques and computing environment that are suitable for the applications under consideration
3.	To gain practical, hands-on experience with statistics programming languages and big data tools through coursework and applied research experiences	Students will be able to solve problems associated with batch learning and online learning, and the big data characteristics such as high dimensionality, dynamically growing data and in particular scalability issues
4.	To apply data science concepts and methods to <b>solve</b> problems in real-world contexts and will communicate these solutions effectively	Students will to recognize and implement various ways of selecting suitable model parameters for different machine learning techniques
5.	To develop the ability to build and assess data-based models	Students will integrate machine learning libraries and mathematical and statistical tools with modern technologies like hadoop and map reduce