HUMAN RESOURCE ANALYTICS

Course Code	20MBAHR304	CIE Marks	40
Teaching Hours/Week (L:T:P)	3:0:2	SEE Marks	60
Credits	04	Exam Hours	03

Course Objectives

1. The student will be able to describe and Identify the application of HR Analytics in the Organisation
2. The student will be able to describe and explain in her/his own words, the relevance and importance of HR Analytics in the Organisation
3. The student will be able to apply and solve the workplace problems through application of HR Analytics in the Organisation
4. The student will be able to classify and categorise different models of HR Analytics in the Organisation
5. The student will be able to compare and contrast different approaches of HR Analytics in the Organisation
6. The student will be able to design and develop an original framework and model in dealing with the problems in the organisation.

Module-1 Introduction   7 hours

Evolution of Business Analytics, Motivation for Studying Business Analytics, Emergence of Business Analytics, Understanding Business Analytics, Managing a Business Analytics Project, Advantages of Business Analytics, Making the Best Use of Business Analytics, Challenges to Business Analysts, Analytics in Different Domains of Business. Levels of Analytics Maturity.

Module -2 Rise of Human Resource(HR)Analytics   7 hours

Meaning of HR Analytics; Pitfalls of HR Analytics; What is not HR Analytics; Evolution of HR Analytics, Levels of Analysis, Conducting HR Analytics, Who Are Applying HR Analytics, Future of HR Analytics, The Scope of Big Data in HR Analytics, Scope of Text Analytics in HR Analytics.

Module -3 Applications of HR Metrics and Creating HR Dashboards   9 hours

HR Metrics, Types of HR Metrics, Staffing Metrics, Training and Development Metrics, Application-oriented Exercises : Dashboards: Few Key Excel Add-ins/Functions to Help Create Dashboards, Name Range, The Developer Tab, Form Controls, Important Excel Formulas Useful for Creating Dashboards, VLOOKUP, INDEX, SUMIF, AVERAGEIF and COUNTIF, Application of Excel Functions in Creating HR Dashboards, Storyboarding: Connecting the Dots and Integrating the Findings.

Module -4 Correlation and Regression for HR Analytics   9 hours

Correlation Analysis, Output of Correlation Analysis, The Case of Outlier, Software for Statistical Analysis 1-GNU PSPP, Plotting Scatter Plot in PSPP, Conducting Correlation in PSPP , Software for Statistical Analysis 2: R and R Commander, The Advantage of Free OSS over Closed Software, Simple Linear Regression Analysis, Co-variation of the Cause and Effect, Temporal Precedence, Plausible Alternative Explanations, Assumptions of Regression Analysis, Interpretation of the Output of Simple Linear Regression Analysis, Conducting Simple Linear Regression Analysis in PSPP, Conducting Simple Linear Regression Analysis in R Commander, Multiple Regression Analysis, Interaction Effects.

Module -5 HR Analytics Applications using ANOVA   9 hours

One-Sample T-test, Null and Alternate Hypotheses, One-Sample T-Test, Assumptions of One-Sample T-test , Conducting One-Sample T-Test in PSPP, Conducting One-Sample T-Test in R Commander, Interpreting the Output of One-Sample T-Test, Paired Sample T-Test, Conducting Paired-Sample T-Test in PSPP, Conducting Paired-Samples T-Test in R Commander, Independent-Sample T-Test, Conducting Independent-Sample T-Test in PSPP, Conducting Independent-Sample T-Test in R Commander, Analysis of Variance, Conducting Independent One-Way ANOVA in PSPP, Conducting Independent One-Way ANOVA in R Commander, Steps to Analyse the Output of ANOVA, Advanced Concepts.

Module – 6 HR Analytics Applications using Regression	9 hours

Logistic Regression with Single Nominal Predictor, Assumptions of Logistic Regression Analysis Conducting Logistic Regression Analysis in PSPP, Conducting Logistic Regression Analysis in R Commander, The Output of Logistic Regression Analysis, Multiple Predictors, Conducting Logistic Regression Using Rattle Package, Advanced Concepts , Pros and Cons of Logistic Regression as a Supervised Learning Algorithm; Factor Analysis and Cluster Analysis: Factor Analysis, Assumptions of Factor Analysis, Considerations Before Conducting Factor Analysis; Conducting Factor Analysis in PSPP, Conducting Factor Analysis in R Commander, Interpretation of the Output of Factor Analysis, Cluster Analysis, Assumptions of Cluster Analysis, Conducting Cluster Analysis in PSPP, Conducting Cluster Analysis in R Commander, Conducting Cluster Analysis in Rattle, Interpreting the Output of Cluster Analysis, Advanced Concepts.

Course Outcomes:
At the end of the course the student will be able to:
1. Gain practical insight of HR Processes, HR analytics and predictive modelling used in HR functions.
2. Acquire conceptual knowledge of HRA frameworks, models and approaches.
3. Illustrate the application of datafication of HR, predictive analytics tools and techniques.
4. Analyse the employee data set, considering the various concepts and functions of HR, facilitating the decision making in business context.

Practical Component:
- To visit an Organisation and interact with Analyst who deals with HR function; Know how the data is used and worked.
- Prepare a dashboard and analysis various functions and interrelations of data.
- Work on Excel through real time data of any company and generate the output.

CO-PO MAPPING

CO	PO				
	PO1	PO2	PO3	PO4	PO5
CO1	X				X
CO2	X			X	
CO3	X	X		X	
CO4	X			X	

Question paper pattern:
The SEE question paper will be set for 100 marks and the marks scored will be proportionately reduced to 60.
- The question paper will have 8 full questions carrying equal marks.
- Each full question is for 20 marks.
- Each full question will have sub question covering all the topics under a Module.
- The students will have to answer five full questions; selecting four full question from question number one to seven and question number eight is compulsory.
- 100 percent theory in the SEE.

Textbooks

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year

1	Practical Applications of HR Analytics	Pratyush, Banerjee; Jatin Pandey; Manish Gupta	Sage Texts, India	2019
2	HR Analytics- Understanding Theories and Applications	Bhattacharya, Dipak Kumar	Sage Texts, India	2017
3	Winning on HR Analytics- Leveraging Data for Competitive Advantage	Ramesh, Soundarajan and Kuldeep Singh	Sage Publication India Pvt. Ltd.	2016

Reference Books

1	Applying Advanced Analytics to HR Management Decisions: Methods for Selection, Developing Incentives and Improving Collaboration	Sesil James, C	Pearson, New Jersey	2017
2	Predictive Analytics- Mastering the HR Matrix	Martin Edwards and Kirsten Edwards	Kogan Page	2019
3	Fundamentals of HR Analytics: A Manual on Becoming HR Analytical	Fermin Diez, Mark Bussin, Venessa Lee	Emerald Publishing Limited	2019