

Name of the Programme : MBA (Financial Services)
 Course Code : MGF-603
 Course Title : Business Analytics
 Number of Credits : 4
 Effective from AY : 2022-23

Pre-requisites for the Course:	NIL	
Course Objectives:	To familiarize the learners about the domain of business analytics and equip them with skills in descriptive, predictive and prescriptive analytics.	
Content:	Unit 1 : Introduction to Business Analytics Meaning and significance of business analytics, Applications of business analytics, <i>Types of business analytics</i> : Descriptive analytics, Predictive analytics, Prescriptive analytics. Building analytics capability, Business analytics process, Role of business analytics in strategy. Deployment of business analytics model, Requirements for effective implementation of business analytics models, Big data analytics, Challenges in data driven decision making, Application software in business analytics.	15 Hours
	Unit 2 Descriptive Analytics <i>Introduction to descriptive analytics</i> : Structured and unstructured data, Descriptive statistics. Data visualization: Univariate visualization, Bivariate visualization, Multivariate visualization. <i>Graphical exploratory data analysis</i> (Example: Box-plots, heatmap, Histograms, Scatterplots) <i>Building business intelligence dashboard</i> : Mapping, Interactive data charts, Association rules, Sequence rules, Segmentation rules: Cluster analysis (K-means and Hierarchical clustering), Social media analytics	15 Hours
	Unit 3 Predictive Analytics <i>Regression models</i> : Introduction to classical linear regression model, Assumptions of CLRM, Specification and estimation of bivariate and multiple regression models, Statistical inference and hypothesis testing, Properties of least square estimators (BLUE), Model diagnostics, Model misspecification errors, Violation of regression assumptions. <i>Decision Tree</i> : Introduction, Chi-Square Automatic Interaction Detection (CHAID) tree development, Classification and Regression Tree (CART), Random Forest, Machine learning applications in decision tree analysis. <i>Other techniques</i> : Discriminant analysis, Artificial Neural Network.	20 Hours
	Unit 4 Prescriptive Analytics <i>Introduction to prescriptive analysis</i> : Linear programming (LP) model building, Sensitivity analysis in LP, Graphical solution to LP, Portfolio optimization techniques.	10 Hours
Pedagogy:	Lectures/ case analysis/assignments/class room interaction/lab based exercises.	
References/	1. Laursen, G. and Thorlund, J. (2010). <i>Business Analytics for Managers</i> .	

Readings:	Wiley. 2. Kumar, U. (2017). <i>Business Analytics: The Science of data-Driven Decision Making</i>. Wiley. 3. Rao, P. (2013). <i>Business Analytics: An Application Focus</i>. PHI Learning, Delhi. 4. Abbott, D. (2014). <i>Applied Predictive Analytics</i>, Wiley. 5. Winston, W. (2016). <i>Microsoft Excel Data Analysis and Business Modeling</i>, Pearson. 6. Tatsat, H., Puri, S., Lookabaugh, B. (2020). <i>Machine Learning and Data Science Blueprints for Finance</i>, O'Reilly Media Inc., Boston, USA. 7. Mitchell, T. (2017). <i>Machine Learning</i>, McGraw Hill. 8. Kang, M. and Choi, E. (2021). <i>Machine Learning: Concepts, Tools and Data Visualization</i>, World Scientific. 9. Gujarati, D. (2004). <i>Basic Econometrics</i>, McGraw Hill, New Delhi. Wooldridge (2006). <i>Introductory Econometrics</i>, Thomson-South Western, Singapore. <i>Latest edition</i>.
Course Outcomes:	Upon completion of the course learners will be able to: CO1. Explain the concepts in business analytics, its process and strategic significance. CO2. Perform descriptive analytics with data visualization, cluster analysis, and social media analytics. CO3. Apply techniques of regression models, decision trees, Discriminant analysis, and Artificial Neural Network in developing predictive models. CO4. Determine optimal solutions for given business resource problem with application of linear programming.

GOA BUSINESS SCHOOL
MBA (FINANCIAL SERVICES) SEMESTER III
TIME TABLE (W. e. f. 01/08/2023)

Timing	Monday	Tuesday	Wednesday	Thursday	Friday
9.30 - 10.30 AM	Macroeconomics [Dr. Narayan]	BR Methods [Mr. Jick]	FinTech [Dr. Pournima]	FinTech [Dr. Pournima]	Derivatives Market [Dr. Sanjeeta]
10.30 - 11.30 AM	Macroeconomics [Dr. Narayan]	BR Methods [Mr. Jick]	FinTech [Dr. Pournima]	FinTech [Dr. Pournima]	Derivatives Market [Dr. Sanjeeta]
11.30 - 12.30 PM	Entrepreneurship [Dr. Pawaskar]	Digital Marketing [Dr. Pournima]	Entrepreneurship [Dr. Prachi]	Digital Marketing [Dr. Pournima]	Macroeconomics [Dr. Narayan]
12.30 - 01.30 PM	Entrepreneurship [Dr. Pawaskar]	Digital Marketing [Dr. Pournima]	Entrepreneurship [Dr. Prachi]	Equity Valuation [Mr. Jick]	Macroeconomics [Dr. Narayan]
LUNCH BREAK (1.30 pm to 2.30 pm)					
02.30 - 03.30 PM	Derivatives Market [Dr. Sanjeeta]	Business Analytics [Dr. Harip]	Equity Valuation [Mr. Jick]	Equity Valuation [Mr. Jick]	Mentoring
03.30 - 04.30 PM	Derivatives Market [Dr. Sanjeeta]	Business Analytics [Dr. Harip]	Equity Valuation [Mr. Jick]	Business Analytics [Dr. Harip]	Mentoring
04.30 - 05.30 PM	BR Methods [Dr. Narayan]	Digital Marketing [Dr. Pournima]	BR Methods [Dr. Narayan]	Business Analytics [Dr. Harip]	Mentoring

MGF-600: Equity Valuation
MGF-601: Derivatives Market
MGF-602: Business Research Methods
MGF-603: Business Analytics

- Mr. Jick Castanha
- Dr. Sanjeeta Parab
- Dr. Narayan Parab/
Mr. Jick Castanha
- Dr. Harip Khanapuri

MGF-621: Macroeconomics
MGF-623: Entrepreneurship
MGF-624: Digital Marketing
MGF-625: FinTech

- Dr. Narayan Parab
- Dr. Dr. Pinky Pawaskar/
Dr. Prachi Kolamker
- Dr. Pournima Dhume
- Dr. Pournima Dhume

To, Student Circulation, Faculty Circulation
Copy to: Vice Dean (Academics)


Dr. Harip Khanapuri
(Programme Director)
MBA (Financial Services)

GOA UNIVERSITY				
Exam	November 2023 Examination (Master of Arts in Economics - MAEC)			
College	Goa Business School			
Programme	Master of Arts in Economics			
Paper	MGF-603.	Business Analytics		
Paper Head	SEA	Max Marks	40	Credits 4

Seat No	SEA Marks
22P0100005	21
22P0100020	23.5
22P0100026	29.5

Certified that all the sub components have been taken into account while finalising the above marks.

Dr. Aramp Khanapuri

NAME OF EXAMINER

C. N. N.

EXAMINERS'S SIGNATURE

C. N. N.

Dean/Programme Director/ Principal's Signatu

Date: _____

N.B.NOTE : Department/College may kindly confirm that the above details are correct with reference to paper title, paper code and number of credits.

<< Absentees should be marked as 'A' (without quotes) >>

<< Carry forward of marks should be indicated as 'CF' (without quotes) >>

204
6/3/24
Shubhada

GOA UNIVERSITY				
Exam	November 2023 Examination (Master of Arts in Economics - MAEC)			
College	Goa Business School			
Programme	Master of Arts in Economics			
	-			
Paper	MGF-603	Business Analytics		
Paper Head	ISA	Max Marks	60	Credits
				4

Seat No	Student Name	ISA Marks
22P0100005	BERDOVA MUQADDAS KARAMSHOEVNA	39
22P0100020	JUMABAYEVA MAYSA	43
22P0100026	NTSELISENG ALINAH LETOLO	39.5

Certified that all the sub components have been taken into account while finalising the above marks.

Dr. Harp Khanapuri
NAME OF EXAMINER


EXAMINER'S SIGNATURE


Dean/Programme Director/ Principal's Signatu
Date: _____

N.B.NOTE : Department/College may kindly confirm that the above details are correct with reference to paper title, paper code and number of credits.

<< Absentees should be marked as 'A' (without quotes) >>
<< Carry forward of marks should be indicated as 'CF' (without quotes) >>

SECS
Inward No. 905
Date: 6/3/24
To: Chv bloca
Signature

GOA UNIVERSITY				
Exam	November 2023 Examination (Master of Business Administration in Financial Services - MBAFS)			
College	Goa Business School			
Programme	Master of Business Administration in Financial Services			
Paper	MGF-603			
Paper Head	ISA	Business Analytics	Max Marks	60
			Credits	4

Seat No	Student Name	ISA Marks
22P0300001	BILAL	39.5
22P0300004	FATHMA ZOHRA KHAN	40
22P0300005	GULBUDDIN	37
22P0300006	HASHMATULLAH	39
22P0300012	MALVIYA ANJALI GOVIND	38
22P0300014	MATIULLAH	48
22P0300015	PAI ANTARA ARUN	32.5
22P0300017	RAHUL SRIVASTAVA	39.5
22P0300018	SAID HADI SHAH	38.5
22P0300022	SAYED AHMAD SHAH SADAT	28.5
22P0300023	SAYED AZHAAR NAZIR	38
22P0300024	SEELYAR MAHMOOD	37.5

Certified that all the sub components have been taken into account while finalising the above marks.

Dr. Hameed Khan
NAME OF EXAMINER

EXAMINER'S SIGNATURE

Dean/Programme Director/ Principal's Signature

Date: 14/2/24

N.B. NOTE : Department/College may kindly confirm that the above details are correct with reference to paper title, paper code and number of credits.

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GOA UNIVERSITY				
Exam	November 2023 Examination (Master of Business Administration in Financial Services - MBAFS)			
College	Goa Business School			
Programme	Master of Business Administration in Financial Services			
	--			
Paper	MGF-603	Business Analytics		
Paper Head	SEA	Max Marks	40	Credits
				4

Seat No	SEA Marks
22P0300001	33
22P0300004	23.5
22P0300005	A
22P0300006	11.5
22P0300012	14
22P0300014	24.5
22P0300015	A
22P0300017	24
22P0300018	22
22P0300022	12.5
22P0300023	11.5
22P0300024	21.5

Certified that all the sub components have been taken into account while finalising the above marks.

Dr. Pramp. H. M. M. M.
NAME OF EXAMINER

C. V. M.
EXAMINER'S SIGNATURE

C. V. M.
Dean/Programme Director/Principal's Signature

Date: 14/12/24

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