



Bachelor of Business Administration (Honours) - Business Analytics
(Three - Year Full Time Programme)

2020-23 BATCH

PROGRAMME STRUCTURE & SYLLABUS

**Birla School of Management
(BSoM)
Birla Global University**

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1. ABOUT THE PROGRAMME

BBA(Hons) Business Analytics

Business Analytics is a combination of Business Intelligence, Data Analytics and Computer Programming. It is the science of analyzing data to find out patterns that helps in developing strategies. Its usage can be found in almost every business and industry as well as government departments. The practice relies heavily on statistical analysis, and is employed by organizations to arrive at informed decision-making. Business analytics helps companies get insights about their performance, which serves as a corporate asset, giving them a competitive edge. Business analytics also allows companies to optimize and even automate business processes. The specialization gives you an opportunity to learn data management, data analytics, and decision analytics in order to make strategically sound recommendations and data-driven business decisions—exactly what cutting-edge companies around the world need.

1.1 Programme Objectives

The main objectives of the three years BBA Honours (Business Analytics) Programme are :

- To provide knowledge in management disciplines with an understanding of its applicability in business decision making for positive social impact.
- To strengthen the foundation for further specialization in area of Business Analytics.
- To inculcate an attitude and desire to learn.
- To develop competent professionals committed to excellence.

1.2 Duration of the BBAH(BA) Programme

BBAH(BA) is a three-year full time programme in Management. An academic year is from June to May. The programme is divided into six semesters. During the first two semesters, the students are provided extensive teaching in a number of core courses. The students are required to study core as well as specialization courses from the third semester onwards till the sixth semester. The students are required to undertake a Summer Project (SIP) after the completion of fourth semester in the area of Business Analytics.

1.3 Programme Outcomes (POs)

By the end of the BBAH Business Analytics programme, students should be able to:

1. Develop knowledge and skills in the field of business analytics and learn to analyse data in order to secure meaningful information necessary for businesses in crafting strategies.
2. Demonstrate IT knowledge and skills for efficient and effective business processes and develop innovative methods of applying IT and e-commerce for competitive advantage. (IT proficiency)
3. Acquire basic knowledge of various disciplines in economics, law, accounting and different functions of management and to and apply the same to real life business processes and system enhancements in a holistic manner. (Multidisciplinary Knowledge).
4. Understand the basic concepts of quantitative methods to apply in the study of other disciplines and prepare project reports. (Quantitative Application in Business).
5. Acquire the basic legal knowledge related the various business operations. (Law in Business).
6. Understand the basic management functions and fundamentals of business management. (Basics Business Management).
7. BBA Business Analytics programme allows students understand various environmental problems and their impact on society and business through analytics approach. (Environmental Study).
8. Communicate effectively in different business contexts and situations so as to be able to receive and give clear instructions, comprehend, write reports, prepare documentation and make effective presentations. (Communication).
9. Demonstrate ethical conduct in personal and professional decisions and of business and an appreciation of the significance of business ethics and social responsibility in the decision-making process through an analytical mindset. (Ethics & Social Responsibility)

Post Programme Prospects

On completion of the BBA Business Analytics program offered by the Birla School of Management, BGU :

1. Graduates can start their professional career in field of analytics which has become a quintessential part of modern businesses.
2. Graduates can pursue a relevant post-graduate study such as MBA(General Management) , MBA(Business Analytics), M.Sc.(Data Science), M.Sc.(AI and ML) etc.
3. Graduates can engage in start-ups in the business analytics domain.

4. Graduates will be informed and involved members of their communities and responsible professionals.

1.4 Programme Highlights

During the three years BBAH(BA) Programme, students will cover.

- 14 Core Courses
- 3 Ability Enhancement Compulsory Courses
- 4 Skill Enhancement Elective Courses
- 4 Generic Elective Courses
- 4 Discipline Specific Elective Courses

The main focus of the above courses will be on the following:

- Ability to apply analytical tools and methods to address management challenges
- Developing Analytical, Logical and Critical Thinking Skills
- Develop a deep understanding of the way modern businesses run
- Understanding of Global Business Environment
- Practical exposure with help of Industrial visits and Internship opportunities.
- Imparting Entrepreneurial Skills focused on business analytics
- Improving Effective Communication Skills and holistic personality development

The courses are reviewed and revised at a regular interval by the industry and academia experts to keep the programme updated with contemporary management practices.

1.4.1 Immersion Course: An immersion course is offered in the beginning of the programme which covers the basics of Management Principles, Communication, Mathematics, Accounting, and Corporate awareness. The course includes morning yoga, meditation, various kinds of sports and cultural activities to build up the concept of teamwork. The special attraction of this programme is theatre workshop ending with stage performance (through drama) by different groups of students based on some important themes.

1.4.2 Core Courses: There are 14 Core Courses (CC), 3 Ability Enhancement Compulsory Courses (AECC), 4 Skill Enhancement Courses (SEC), 4 Discipline Specific Elective (DSE) courses and 4 Generic Elective Courses (GEC) offered in the areas of

Marketing, Finance, Operation Management & Decision Science, OB & HR, Business Communication and General Management. General management courses include the courses such as Strategic Management, Managerial Economics, Cyber Law, Environmental Studies. Personality Development for Corporate Readiness (PDCR) is also a part of the curriculum.

1.5 Pedagogy: The pedagogy adopted by the BBAH(BA) Programme is scrupulously designed to involve academic seriousness and practical application which includes the following:

1.5.1 Lectures:

Faculty members use audio-visual teaching aids while delivering lectures to enhance the learning effectiveness among the students. The classroom teaching includes sessions by the qualified and experienced faculty who are known for their dedication to teaching and research.

1.5.2 Virtual (On-line) Classes:

Faculty at BGU are well equipped with the technology and expertise to conduct classes on-line using various virtual platforms like Microsoft-team, Google meet, Zoom etc. In the COVID-19 pandemic situation, The courses will be offered in both synchronous and asynchronous modes of learning.

1.5.3 Project Work:

The students are also given opportunities to learn practical application of management concepts and methods through projects. This forms a part of the internal evaluation in most of the courses.

1.5.4 Simulations:

The students are to be involved in simulation games, quizzes, role plays, etc. in order to develop analytical and decision-making capabilities. The students face in these simulation exercises, replicate the kind of situations they would face in the corporate environment.

1.5.5 Case Studies:

The faculty members encourage students to go for case analysis in order to learn about different solution scenarios, risk-taking behaviors and to develop pro-active responses while facing innovative managerial issues. The decision-making process is made a part of the student's mindset through cases.

1.5.6 Role Play :

Role play is a method for exploring the issues involved in complex business situations. A spirit of innovation, achievement and commitment of a group of students for real business solutions are demonstrated in a dramatised form in the class.

1.5.7 Interaction with Industry Experts:

As a part of the academic activity, workshops, guest lectures, panel discussions, seminars, conferences etc are organized in regular intervals for the students inviting experts from industry.

1.5.8 Experiential learning:

At BGU, much emphasis is on experience and learn. Through Summer Projects and Business seminars the students are usually exposed to the industry practices.

1.5.9 Summer Project:

Each student after completion of the Semester-IV has to undergo six (6) weeks summer project in the industry from 15 April-15 June. At the end of the summer

project, each student is required to make a presentation and appear in viva-voce for evaluation. The students are expected to undertake field projects with utmost seriousness in order to gain practical exposure. The report developed during the period should highlight cross-sectional problems, challenges, and suggest solutions.

1.5.10 Participation in Business Seminars:

Eminent guest speakers from different domains, both from industry and academia are invited to share their experience with the students and encourage them to inculcate entrepreneurship. All students are required to participate in the business seminars. The student can also attend the seminars, conferences and workshops organized outside the university. They can write research papers either individually or with any faculty and present the same in the seminars and conferences. In an academic year, at least 2 National or International Seminars should be organized in which BBAH(BA) students can participate.

1.5.11 Co-curricular Activities:

The students will be involved in various co-curricular activities to be organized by the Marketing, Finance, HR, Operations and Communication clubs. There should be at least two events to be organized by each club in a month.

2. PROGRAMME STRUCTURE OF BBA HONOURS (BUSINESS ANALYTICS)
(2020-23 Batch)
UNDER CBCS PATTERN

SEMESTER	COURSE CODE	COURSE TITLE	COURSE TYPE	COURSE CREDIT
SEMESTER-I	BBABA-1.1	Effective Communication Skills	AEC-I	3
	BBABA-1.2	Quantitative Methods-I	GEC-I	6
	BBABA-1.3	Financial Accounting	CC-I	6
	BBABA-1.4	Principles of Management	CC-II	6
	BBABA-1.5	Management Information Systems (MIS)	GEC-II	6
	BBABA-1.6	PDCR-I	SEC-I	0
			Total Credit in Semester-I	
SEMESTER-II	BBABA-2.1	Communication for Business	SEC-II	3
	BBABA-2.2	Organizational Behaviour	CC-III	6
	BBABA-2.3	Managerial Economics	CC-IV	6
	BBABA-2.4	Principles of Marketing	CC-V	6
	BBABA-2.5	Environmental Studies	AEC-II	3
	BBABA-2.6	PDCR-II	SEC-III	3
			Total Credit in Semester-II	
SEMESTER-III	BBABA-3.1	Quantitative Methods-II	GEC-III	6
	BBABA-3.2	Data Visualization and EXCEL	GEC-IV	6
	BBABA-3.3	Research Methods	CC-VI	6
	BBABA-3.4	Data Base Management System	CC-VII	6
			Total Credit in Semester-III	
SEMESTER-IV	BBABA-4.1	Data Mining and Warehousing	CC-VIII	6
	BBABA-4.2	Introduction to Business Analytics	CC-IX	6
	BBABA-4.3	Financial Management	CC-X	6
	BBABA-4.4	Entrepreneurship	SEC-IV	3
			Total Credit in Semester-IV	
SEMESTER-V	BBABA-5.1	Statistical Data Modelling Using R	CC-XI	6
	BBABA-5.2	Cyber Law	AEC-III	3
	BBABA-5.3	HRM and HR Analytics	DSE-I	6
	BBABA-5.4	Strategic Management	CC-XII	6
	BBABA-5.5	Summer Project	CC-XIII	6
		Total Credit in Semester-V		27
SEMESTER-VI	BBABA-6.1	Big Data Analytics	CC-XIV	6
	BBABA-6.2	Supply Chain Analytics	DSE-II	6
	BBABA-6.3	Financial Analytics	DSE-III	6
	BBABA-6.4	Marketing Analytics	DSE-IV	6
		Total Credit in Semester-VI		24
Total Credit				150

3. DETAILS OF THE SYLLABUS

3.1 Semester-I Courses

SEMESTER 1			
COURSE CODE	COURSE TITLE	FULL MARKS	CREDIT
BBABA-1.1	Effective Communication Skills	50	3
BBABA-1.2	Quantitative Methods-I	100	6
BBABA-1.3	Financial Accounting	100	6
BBABA-1.4	Principles of Management	100	6
BBABA-1.5	Management Information System	100	6
BBABA-1.6	Personality Development for Corporate Readiness –I	0	0
	Total Credit		27

Course Name	Effective Communication Skills
Course Code	BBABA-1.1
Course Credit	3
Semester	I
Aims and Objectives	<p>The objective of the course is to help the students improve English Language Proficiency in the four skills of Listening, Speaking, Reading & Writing (LSRW), so that they can use the language for communication in various contexts & also understand the use the language for creative expressions in speaking & writing.</p> <p>The learning material prescribed is interactive, task-based and skill-oriented. The pedagogy is participative & interactive. The tasks designed are not prescriptive and may be modified depending on the requirements of the target group. The desired skills will be practiced in the Language Lab. Every student will get a lab exposure of minimum 6-8 hours. The pedagogies will involve: Lecture Mode, Class Interaction, Case Study/News/Debate/ Interview Discussion & Analysis, Writing Workshops, Audio-Visual Method, Peer & Self Review & Blended Learning.</p>
Course Intended Learning Outcome	<p>At the end of the course, the students will be able to:</p> <ul style="list-style-type: none"> • understand the Use of Language Functions, Explain, Describe • summarize, Paraphrase & Collate Information • apply the principles of Speaking & Respond to Situations/News/Case Studies • articulate Coherently & Creatively in Speaking & Writing • develop Language Skills, Critical & Creative Thinking
Pre-Requisite	The student should have requisite knowledge & practice to express himself/herself in English language in real world situations & should have a good foundation on the mechanics of grammar & vocabulary
Course Outline	UNIT I

Effective Listening Skills

Listening & Interpreting, Active Listening, Listening Critically, Overcoming Barriers, Strategies of Effective Listening, Bottom-Up & Top-down Approach, Listening & Note-taking, Listening & Responding (Conversation/Interview/Discussion/Story)

UNIT II**Improving Oral Proficiency in English**

Use of Language Functions(Introducing self & others, expressing opinion, giving suggestions, agreeing, disagreeing etc), Elements of Effective Speaking Skills, Observing & Interpreting, Narrating & Describing, Explaining Process, Responding to News, Speaking Impromptu, Present Ideas and Summarise Information, Creative Use of Language, Learning International Phonetic Alphabets for Better Pronunciation, Correcting Mispronounced Words

UNIT III**Developing Reading Skills**

Reading & Comprehending, Strategies for Reading Skills, Critical Reading, Reading a Piece of Literature/News/Case-study, Reading & Summarizing, Building Word Power

UNIT IV**Writing Skills & Analysis**

Elements of Effective Writing, Sentence Types, Stages of Writing, Planning, Analysing, Selecting, & Organising, Paragraph Writing & Types, Linkage and Cohesion, Letter Writing (formal), Writing an Essay, Correctness & Conciseness in Writing

UNIT V**Using Error-Free Language**

Fostering Word Consciousness, Use of Dictionary, Contextual Analysis, Grammar of words, Words Often Confused, Review of English Grammar and Usage, Error Analysis (Correction of Errors in a Given Sentence, Errors in the Use of Words, Errors in Punctuation)

LAB OUTLINE

Lab-1 & 2- Active Listening, Listening to IELTS

Lab 3 & 4- Practising Phonetics- Learning IPA, Stress & Intonation

	<p>Lab 5 & 6- Reading for Comprehension & Critical Reading Skills Lab 7 & 8- Brain Storming, Writing & Editing</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment (Lab) :30 % ▪ End Semester Assessment : 70 %
References	<p>Text Book</p> <ul style="list-style-type: none"> • Kumar, S., & Lata, P. (2018). <i>Communication Skills</i> (2nd ed.). Oxford University Press, New Delhi. <p>Other Readings</p> <ul style="list-style-type: none"> • Raman, M., & Singh, P. (2018). <i>Business Communication</i> (2nd ed.). Oxford University Press, New Delhi • Kumar, S.P. (2018). <i>Foundation Course: Language, Literature & Creativity</i>. Orient Black Swan, University of Delhi. • Seely, J. (2018). <i>Oxford Guide to Effective Writing & Speaking</i> (3rd ed.). Oxford University Press, New Delhi. <p>E-resources</p> <ul style="list-style-type: none"> • Kumar, E.S. (2011, January 18). <i>Three Blind Men describe an Elephant</i>, Indian Review. https://indianreview.in/fiction/malayalam-short-stories-three-blind-men-describe-an-elephant-by-e-santhosh-kumar/ Accessed 1 June, 2018. • Twinkle, K. (2018, September 16). <i>Lesson from Frida: Backbone can win over broken spine</i> in 'Mrs. Funnybones', The Times of India. https://timesofindia.indiatimes.com/blogs/mrsfunnybones/lesson-from-frida-backbone-canwin-over-broken-spine/ Accessed 13 June, 2018. • Edwards, A. (2016). <i>Forced displacement worldwide at its highest in decades</i>, UNHCR. https://www.unhcr.org/news/stories/2017/6/5941561f4/forced-displacement-worldwide-its-highest-decades.html Accessed 1 June, 2018. • <i>13 letters every parent every child should read on Children's Day</i>, The Indian Express, 10 November 2014. https://indianexpress.com/article/lifestyle/feelings/12-letters-every-parent-every-child-should-read-on-childrens-day/ Accessed 1 June, 2018 • Knapton, S. (2017, December 15). <i>'Selfitis' -- the obsessive need to post selfies-- is a genuine mental disorder say psychologists</i>, The Telegraph. https://www.telegraph.co.uk/science/2017/12/15/selfitis-obsessive-need-post-selfies-genuine-mental-disorder/ Accessed 1 June 2018.

Course Name	Quantitative Methods-I
Course Code	BBABA-1.2
Course Credit	6
Semester	I
Aims and Objectives	To make the students understand the basic concepts in the areas of Business Mathematics and Operations Research. This course also aims to equip the students independently solving of business problems using Mathematical and Optimization Techniques.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand and build the concept of functions, matrices, linear equations, differentiation and integration. • apply the concept and techniques of matrices and system of linear equations in solving business problems that requires such concepts. • apply differentiation and integration techniques in business problems. • formulate and solve linear programming problem arising in business decision making process, and formulate and solve transportation problems and assignment problems.
Pre-Requisite	Elementary mathematical skills, e.g. basic number system, basic algebra, coordinate system, fractions and decimals
Course Outline	<p>UNIT I</p> <p>Functions and their Applications Functions, Domain and Range of a function, Types of functions, Linear and Quadratic functions, Some Special Functions.</p> <p>UNIT II</p> <p>Differential and Integral Calculus Limits and continuity: Limit of a function, continuous functions, limit of a sequence. Differentiation and derivatives: Derivative, Basic laws of derivative, Applications. Maxima and minima of functions: Maxima and Minima, Applications. Integral Calculus: Integral, Integration by parts, Applications.</p> <p>UNIT III</p> <p>Matrices and System of Linear Equations Matrices: Matrices and Types, Operations on matrices, Determinant of a square matrix, Inverse of a square matrix, Linear Equation: System of linear equations, solution of system of linear equations by Cramer’s Rule</p> <p>UNIT IV</p>

	<p>Linear Programming Problem Introduction to OR, Applications of OR, Introduction to LPP, Formulation of LPP, Graphical Method and Simplex Method of Solving LPP.</p> <p>UNIT V</p> <p>Transportation and Assignment Problem Transportation problem (TP): Introduction and formulation, North West Corner Rule (NWCR), Least Cost Method (LCM), Vogel's Approximation Method (VAM), Optimality Test (Stepping Stone, MODI Method). Assignment Problem: Concept, Hungarian Method of Solving Assignment Problem</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment : 70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> ▪ Barnett, R.A., Ziegler, M., & Byleen, K.E. (2015). <i>Finite Mathematics for Business, Economics, Life Sciences, and Social Sciences</i> (13th ed.). Pearson, India. ▪ Raghavachari, M. (2017). <i>Mathematics for Management: An Introduction</i>. Tata McGraw Hill, New Delhi. <p>Other Readings</p> <ul style="list-style-type: none"> ▪ Swarup, K., Gupta, P.K., & Mohan, M. (2017). <i>Operation Research</i> (18th ed.). Sultan Chand & Sons, New Delhi. ▪ Vohra, N.D. (2017). <i>Quantitative Techniques in Management</i> (5th ed.). Tata McGraw-Hill. ▪ Sharma, J.K. (2016). <i>OR Theory and Applications</i> (6th ed.). Trinity Press, New Delhi.

Course Name	Financial Accounting
Course Code	BBABA - 1.3
Course Credit	6
Semester	I
Aims and Objectives	<p>The aims and objectives of this course are:</p> <ul style="list-style-type: none"> • to enable students to understand the general objectives of accounting and know the various types of accounting. • to help the students to independently solve accounting related issues. • to familiarize the students with the enlarged boundary of the accounting profession and the areas where accounting plays an important role in the functioning of an organization.
Course Intended Learning Outcome	<p>On completion of this course, the students will be able to:</p> <ul style="list-style-type: none"> • explain the meaning of accounting and classify the types of accounting; systems of accounting. • apply the rules of debit and credit in the preparation of financial statements of a sole-proprietorship organization. • determine the amount of depreciation, profit/loss from sale/disposal of property, plant & equipment. • demonstrate the reason for the existence and survival of a company; accounting treatment for under-subscription and over-subscription of shares of a company.
Prerequisite	Basic knowledge of a business enterprise.
Course Outline	<p>UNIT I Introduction Objects and functions of accounting, accounting as the language of business, branches of accounting, systems of accounting- single entry and double entry systems, accounting concept and conventions, accounting cycle, classifications of accounts, recording business transactions, journalizing, rules of Journalizing, ledger posting.</p> <p>UNIT II The preparation of trial balance, objects in drawing up a trial balance, defects of trial balance. Capital and revenue expenditures and receipts. Errors & their rectification.</p> <p>UNIT III Preparation of Final Accounts Trading, Profit & Loss Account & Balance Sheet - simple & with</p>

	<p>adjustments, manufacturing account.</p> <p>UNIT IV Depreciation accounting and policies The concept of depreciation, depreciation methods, accounting for depreciation, computer based financial accounting.</p> <p>UNIT V Issue & forfeiture of shares Meaning, types of shares - preference shares & equity shares - issue of shares at par, at premium and at discount, pro-rata allotment, forfeiture of shares. Journal Entries, preparation of bank account & preparation of balance sheet in vertical form.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment : 70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Jain, S.P., & Narang, K.L.(2018). <i>Financial Accounting</i>. New Delhi, Kalyani Publishers. • Mukherjee, A., & Hanif, M. (2000). <i>Modern accountancy</i> (3rd ed.). Vol. 1. New Delhi: Tata McGraw-Hill. <p>Other Readings</p> <ul style="list-style-type: none"> • Grewal, T.S., & Chand, S. (2016). <i>Introduction to Accountancy</i>. New Delhi, S. Chand & Company. • Lal, J. (2017). <i>Accounting for Management</i> (5th ed.). Himalaya Publishing House.

Course Name	Principles Of Management
Course Code	BBABA-1.4
Course Credit	6
Semester	I
Aims and Objectives	To provide students with understanding the basic management processes in organizations and develop the knowledge in connection to basic management
Course Intended Learning Outcome	<p>Upon successful completion of the course the Learner will be able to:</p> <ul style="list-style-type: none"> • describe and communicate the management evolution and how it will affect future managers. • conceptually explain the fundamental terminology and frameworks in the four functions of management: planning, organizing, leading and controlling; • analyse organizational case situations in different functions of management. • identify appropriate management techniques that are used in managing contemporary organizations. • evaluate leadership styles to anticipate the consequences of each leadership style. Analyse both qualitative and quantitative information to isolate issues and formulate best control methods
Pre-Requisite	Only an open mind
Course Outline	<p>UNIT I</p> <p>Introduction to Management and Organizations Definition of Management; Science or Art; Manager Vs Entrepreneur; types of managers, Evolution of School of Management, Managerial Roles and Skills</p> <p>UNIT II</p> <p>Business Organization & Planning Types of Business Organization- Sole Proprietorship, Partnership, Company-public and Private Sector Enterprises; Organization Culture and Environment; Current trends and Issues in Management. Nature and Purpose of Planning- Planning Process; Types of Planning, Objectives; Setting Objectives, Policies, Planning premises, Strategic Management. Planning Tools and Techniques- Decision making steps and</p>

		<p>process.</p> <p>UNIT III</p> <p>Organizing & Staffing Nature and Purpose of Organizing; Formal and Informal organization; Organization Chart, Organization Structure, types Line and staff authority; Departmentalization; Delegation of Authority; Centralization and Decentralization Job Design- Introduction to Human Resource Management; HR Planning, Recruitment, Selection, Training and Development, Performance Management, Career planning and management.</p> <p>UNIT IV</p> <p>Directing Foundations of Individual and Group Behaviour; Motivation-Motivation Theories; Maslow's Theory, Herzberg Two Factor Theory, ERG Theory, McClelland's Need Theory, X, Y & Z Theory. Job Satisfaction; Job Enrichment; Leadership- Types and Theories of Leadership –Trait Theory, Behavioral Theory (Ohio, Michigan & Managerial Grid).</p> <p>UNIT V</p> <p>Controlling System and process of Controlling- Budgetary and Non-budgetary Control Techniques- Introduction to MIS, TQM, Six –Sigma. Use of computers and IT in Management control- Productivity problems and management (CPM, PERT); Control and Performance; Direct and Preventive Control – Reporting.</p>
Evaluation		<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References		<p>Text Books</p> <ul style="list-style-type: none"> • Stephen, P.R., DeCenzo, D.A., & Coulter, M. (2017). <i>Fundamentals of Management</i> (7th ed.). Pearson Education. • Kreitner, R., & Mohapatra, M. (2008). <i>Management</i>. Biztantra. • Harold, K., & Heinz, W. (2018). <i>Essentials of management</i>. Tata Mc Graw Hill. • Tripathy, P.C., & Reddy, P.N. (2016). <i>Principles of Management</i>. Tata McGraw Hill.

Course Name	Management Information System
Course Code	BBABA-1.5
Course Credit	6
Semester	I
Aims and Objectives	To understand the basics of Information system in Organizations, IT-enabled Business, Information flow, Decision making, IT Security and Data analysis using Software Tools.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand the basics of Information system in Organizations • acquire knowledge of IT-enabled Business and Information flow • implement data analysis functions using software
Pre-Requisite	Fundamental Knowledge in Computer/IT.
Course Outline	<p>UNIT I What is MIS? Introduction to MIS , Information Systems in Organisations, Characteristics of MIS , Components of MIS, Benefits of MIS, Example of different Information Systems</p> <p>UNIT II Managing Information Systems in Organisations, Introduction, Managing Business in the Internet Era, Managing Information Systems in Organisation IT interaction model, Challenges for the managers.</p> <p>UNIT III Data and Information Data and information, information as a resource information in organizational functions, types of information & types of information systems, transaction processing system, management information system. Decision Support system, Data Analysis (Use of Software tools for data analysis)</p> <p>UNIT IV Decision making and IT Security Decision making with MIS, Tactical decisions, operational decisions, Strategic decisions, IT Security & Cyber Crime</p>

		<p>UNIT V</p> <p>Business Process Integration with IT</p> <p>Business Process Integration, Business processes-example of a complex process, Motivation for Enterprise Systems, ERP systems- finance and accounting module, Human resource management module, Manufacturing and operations module, Sales and marketing module.</p>
Evaluation		<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References		<p>Text Books</p> <ul style="list-style-type: none"> • Loden, D. (2018). <i>Management Information Systems: Managing the Digital Firm</i> (15th ed.). Pearson. • Sinha, P.K. (2016). <i>Computer Fundamentals</i>. BPB Publications. • Davis, G.B., & Olson, M.H. (2016). <i>Management Information System</i>. Tata McGraw-Hill. <p>Other Readings</p> <ul style="list-style-type: none"> • Bidgoli, H. (2018). <i>MIS</i>, Kindle Edition. • MIS Quarterly. • Journal of Management Information Systems.

Course Name	Personality Development And Corporate Readiness -1
Course Code	BBABA-1.6
Course Credit	0
Semester	I
Aims and Objectives	The course intends to instill certain skills and language abilities in the undergraduate students to shape their personality to be a good management graduate needed for corporate set-up.
Course Intended Learning Outcome	On completion of this course : <ul style="list-style-type: none"> • students will be able to understand themselves better and groom and themselves to build acquaintance with the business world • students will understand the positive outcomes of being motivated • students will be able to identify their motivators to perform tasks • students will be aware of developing and a positive and responsible attitude
Pre-Requisite	Only an open mind
Course Outline	<p>UNIT I</p> <p>Introducing Self & Others HOWs of introduction, Problem phrases, HOWs and WHATs of formal & informal introductions</p> <p>UNIT II</p> <p>Understanding Self Self-Evaluation: Identifying one’s own strengths and weaknesses, Self-Awareness for thoughtful and sensible response to manage day-to-day responsibility</p> <p>UNIT III</p> <p>Motivation The Meaning, Types, Importance, Role, Factors influencing Motivation</p> <p>UNIT IV</p> <p>Attitude</p>

		Understanding attitude, Factors influencing Attitude, Inculcating and developing positive attitude
Evaluation		<ul style="list-style-type: none"> ▪ Continuous assessment : 100 %
References		<p>Text Books</p> <ul style="list-style-type: none"> • Ramesh, G., & Ramesh, M. (2017). <i>The Ace of Soft Skills</i> (10th ed.). Pearson, India. • Dhanavel, S.P. (2017). <i>English and Soft Skills</i>, Orient Black Swan. <p>Other Readings</p> <ul style="list-style-type: none"> • Klaus, P. (2008). <i>The Hard Truth about Soft Skills</i> (1st ed.). Harper Collins.

3.2 Semester II Courses

SEMESTER II			
COURSE CODE	COURSE TITLE	FULLMARKS	CREDIT
BBABA-2.1	Communication for Business	50	3
BBABA-2.2	Organizational Behaviour	100	6
BBABA-2.3	Managerial Economics	100	6
BBABA-2.4	Principles of Marketing	100	6
BBABA-2.5	Environmental Studies	100	3
BBABA-2.6	Personality Development for Corporate Readiness –II	50	3
	Total Credit		27

Course Name	Communication for Business
Course Code	BBABA -2.1
Course Credit	3
Semester	II
Aims and Objectives	To develop an understanding among the students on the Communication Process, & Barriers to Effective Communication. The course aims to develop communication skills required in the social and professional contexts, primarily focusing on the presentation skills and business writing skills like Presenting in front of an audience with the help of audio-visual aids, writing Business Correspondence, Email, and Reports & Proposals. The paper also will make the students aware about social networking communication for the social networking etc like LinkedIn & Blogging The pedagogies will involve: Interactive & Participative teaching-learning, Case Study Discussion & Analysis, Writing in Groups & Individually, Audio-Visual Method, Peer & Self Review & Blended Learning.
Course Intended Learning Outcome	At the end of this course, students should be able to: <ul style="list-style-type: none"> • understand the process & principles of Communication • apply the principles of Business Communication in speaking & writing • analyse the importance of Non-verbal Communication in self & other • write effective E-mails, Proposals & Reports • communicate effectively during Group Discussions & Team Presentation
Pre-Requisite	The student should have requisite knowledge & practice to express himself/herself in English language in real world situations & should have a good foundation on the mechanics of grammar & vocabulary
Course	

Outline	<p>UNIT I</p> <p>Nature and Scope of Communication</p> <p>Need and Importance of Communication Skills, Communication Process, Encoding & Decoding, Barriers in the Communication Process, Role of Audience & Feedback, Forms of Communication- Written, Oral & Non-verbal Communication, Ways to overcome Barriers, Formal & Informal Communication</p> <p>UNIT II</p> <p>Understanding Non-Verbal Communication</p> <p>Characteristics & Classification of Non-verbal Communication, Facial Expressions & Other Body Language, Non-verbal Communication for Intercultural Awareness & Sensibilities, Guidelines for Developing Appropriate Non-verbal Communication in Social & Professional Contexts</p> <p>UNIT III</p> <p>Business Correspondence</p> <p>Writing Business Correspondence, Basic Principles of Business Message, Writing an E-mail, Types of Business Letter, Direct & Indirect Approach to Business Correspondence, Inquiry Letter, Complaint Letter, Writing Short Format Report & Proposal</p> <p>UNIT IV</p> <p>Presentation Skills</p> <p>Oral Presentation, Planning & Preparation, Non-verbal Communication Skills in Presentation, Use of Visual Aids in Presentation, Handling Stage Fright & Handling Questions, Use of Business English, Key Expressions & Phrases</p> <p>UNIT V</p> <p>Technology in Business Communication</p> <p>Technology in Business Communication, Text Messaging, Use of New Apps, Instant Messaging, Video Conferencing & Skype, Strategic importance of E-Communication & Social Networking, Writing a Blog</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment (Lab): 30 % ▪ End Semester Assessment :70 %
References	Text Books

- Meenakshi, R., & Prakash, S. (2018). *Business Communication* (2nd ed.). Oxford.
- Chaturvedi, P.D., & Chaturvedi, M. (2018). *Business Communication: Skills, Concepts and Applications* (3rd ed.). Pearson Education, New Delhi

Other Readings

- Lesikar, R.V., Flatley, M.E., Rentz, K., Lentz, P., & Pande N. (2016). *Business Communication* (13 ed.). McGraw Hill Education, New Delhi.
- Lehman, C.M., & DuFrene, D.D. (2018). *BCOM* (9th ed.). Cengage Learning, New Delhi.

Course Name	Organisational Behaviour
Course Code	BBABA-2.2
Course Credit	6
Semester	II
Aims and Objectives	To provide students with knowledge regarding behaviour in organization, how individuals affect each other's behaviour and how productivity can be enhanced from individual behaviour in organization
Course Intended Learning Outcome	At the end of this course, students should be able to get adequate exposure to various forms & practices of Business Communication. That apart, students will be able to: <ul style="list-style-type: none"> • define different concepts and theories in the Organisation • identify the concept of individual, group and organization interaction in the context of behaviour • articulating the concepts of OB as per appropriate situations • analysing the concepts of OB under different situations
Pre-Requisite	The student should come prepared with suggested readings
Course Outline	<p>UNIT I Understanding Organisational Behaviour Definition of Organizational Behaviour, Historical development, Models of Organizational Behaviour, Challenges and opportunities for Organizational Behaviour. Personality – Big Five Model, Job fit theory.</p> <p>UNIT II Foundations of Individual Behaviour Values and Attitudes: Formation of values and attitudes, values across culture, attitude-behaviour relationship, changing attitudes, job-related attitudes. Motivation: Meaning, contemporary theories of motivation, motivating employees through various measures. Perception and Attribution: Meaning, factors influencing perception, Attribution theory, errors in attribution, decision making, rationality, and individual differences in decision making.</p> <p>UNIT III Foundations of Group Behaviour Nature of Groups –Types of groups, Stages of group development: The five-</p>

	<p>stage model. Group structure: Formal leadership; Roles; Norms; Status; Size; Composition; Group tasks; Group processes. Understanding Work Teams: Definition of work teams; Benefits of work teams; Difference between work groups and work teams; Types of work teams; Team effectiveness; Shaping individuals into team players; Teams and Total Quality Management; Teams and workforce diversity. Leadership: Situational theories of leadership, Charismatic, Transactional and transformational theories of leadership, contemporary issues in leadership.</p> <p>UNIT IV Intergroup Behaviour Conflict and Negotiation: Sources of conflict; Classification of conflict; The conflict process; Understanding negotiation; The negotiation process; Types of negotiation in organization: Distributive bargaining; Integrative Bargaining; Issues in the Negotiation Process. Power and Politics: Definition and meaning of Power; Distinctions between power, authority and influence; Bases of power; Contingency approaches to power; Overall contingency model for power; Power in groups: Coalitions; Organizational politics; Definition and nature of politics; Factors relating to political behaviour</p> <p>UNIT V Foundations of Organisation Structure Definition of Structure; Key elements in designing an organization structure; Types of organizational designs; Organisational structures in new age (after COVID-19), Employee behavior in different organisational structure. Organisational Culture: Definition of organisational culture; Characteristics of organisational culture; Uniformity of culture; Types of culture; Functions of culture; Learning culture: Stories; rituals and ceremonies; Material symbols; Language; Changing organisational culture: The change process.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Stephen, P.R., & Judge, T.A. (2010). <i>Organizational Behavior</i> (14th ed.). Prentice Hall. <p>Other Readings</p> <ul style="list-style-type: none"> • Nelson, D.L., Quick, J.C., & Khandelwal, P. (2016). <i>ORGB</i> (2nd ed.). Cengage. • Journal of Organizational Behaviour.

Course Name	Managerial Economics
Course Code	BBABA-2.3
Course Credit	6
Semester	I
Aims and Objectives	To enable an understanding of the Business Concepts and principles of Economics. This will further identify and define problems and opportunities in business scenario effectively on management concepts, plans and decisions in written reports and oral presentations. Moreover, demonstrate professional conduct within any team activities; and to develop the entrepreneurial aptitude.
Course Intended Learning Outcome	Upon successful completion of this course students will be able to <ul style="list-style-type: none"> • understand fundamental micro and macroeconomic concepts that would help them to grasp and analyze the problems they come across during their professional career by using the tools provided during the course. • understand fundamentals of Indian Economy sectors and microeconomic indicators and also fundamentals of production function. • identify different forms of markets along with underlying principles of macroeconomic policies.
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.
Course Outline	<p>UNIT I Principles of Economics Demand, Supply and Equilibrium Analysis; Measurement of Demand; Demand Forecasting; Elasticity of Demand; Market Equilibrium</p> <p>UNIT II Consumer Behaviour Utility; Indifference Curve Theory; Positive and Normative Economics; Marginal Rate of Substitution and Budget Line</p> <p>UNIT III Production Function Isoquants; Production Functions; Total, Average and Marginal Revenue Functions; Returns to Scale; Short Run and Long Run Stages of Production</p>

	<p>UNIT IV Measuring Cost Functions Economies and Diseconomies of Scale; Profit Function Analysis; Calculus Applications; Short Run and Long Run Cost Functions</p> <p>UNIT V Market Structures and Equilibrium Pure Competition; Perfect Competition; Monopoly; Oligopoly; Monopolistic Competition; Game Theory Applications; Market Equilibrium Conditions</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
Reference	<p>Text Book</p> <ul style="list-style-type: none"> • McEachern, W.A., & Indira A. (2019). <i>Microeconomics</i>. Cengage. <p>Other Readings</p> <ul style="list-style-type: none"> • Manwik G. (2019). <i>Principles of Microeconomics</i> (e-book). • Samuelson, P.A., & Nordhaus, W.D. (2019). <i>Economics</i> (20th ed.). McGraw-Hill India.

Course Name	Principles of Marketing
Course Code	BBBA-2.4
Course Credit	6
Semester	II
Aims and Objectives	Upon completion of the course students will develop an understanding of marketing concepts and principles. Students will learn marketing analysis: marketing environment analysis, customer analysis, competitor analysis, and company analysis. This course will familiarize students with the generic business strategies and strategic marketing decisions for profitable delivery of superior value to the customers. This course will enhance students' problem-solving and decision-making abilities in strategic areas of marketing.
Course Intended Learning Outcome	Upon successful completion of the course the learner will be able to: <ul style="list-style-type: none"> • define different marketing concepts and theories • identify the factors that affect marketing environment • illustrate the Segmentation, Targeting and Positioning in marketing • compare marketing strategy of competitors and different organizations
Pre-Requisite	Basic understanding of marketing environment

Course Outline	<p>Unit I Introduction, Definition of Market, Meaning and Definition of Marketing, Scope, Importance and Functions of Marketing, Difference between Marketing and Selling, Core Concepts of Marketing, Company Orientation towards Market Place</p> <p>Unit II: Marketing Environment, Internal Environment of the Organization, External Environment, Need and Importance of Environmental Analysis, Methods of Environmental Analysis - SWOT, PESTLE, MIS, Portfolio Analysis, BCG Matrix, GE Matrix, Porters Five Force Analysis, Value Chain Analysis</p> <p>Unit III Introduction, Marketing Mix, Marketing mix in marketing decisions. Product Related Decisions: Features of a Product and its Classifications, Pricing Decisions: Price and its Determinants, Objectives of Pricing Decisions, Factors Affecting Pricing Decisions, Pricing Policies and Strategies, Pricing Methods, Distribution Strategy: Channel Members, Functions and flows of Channel, Channel Conflict a, Promotion Mix: Promotion Mix components, Difference between Advertising and Sales Promotion</p> <p>Unit IV Evolution of the Study of Consumer Behaviour, Determinants of Consumer Behaviour, Types of Buying Decisions, Consumer Decision Making Process Market Segmentation: Introduction, Definition of market segmentation, Need for market segmentation, Criteria for effective segmentation, Bases for market segmentation, Benefits of market segmentation, Targeting and Positioning</p> <p>Unit V Competitive strategies for market leaders, Challenges, Followers and Nichers, Product Life Cycle, PLC marketing strategies, creating brand equity, crafting the brand positioning, New Product Development.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Book</p> <ul style="list-style-type: none"> • Kotler, P., Keller, K. L., Koshy, A., & Jha, M. (2009). <i>Marketing Management: A South Asian Perspective</i> (13th ed.). Pearson Education. <p>Other Readings</p> <ul style="list-style-type: none"> • Kotler, P., & Keller, K. (2011). <i>Marketing Management</i> (14th ed.). Prentice Hall.

Course Name	Environmental Studies
Course Code	BBABA-2.5
Course Credit	3
Semester	II
Aims and Objectives	The objective of this course is to make the students aware of the importance of protection of environment and conservation of natural resources like land, water, forest and mines etc. and the policies and legislations enacted in the country to protect environment
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • apply systems concepts and methodologies to analyse and understand interactions between social and environmental processes. • reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world. • demonstrate proficiency in quantitative methods, qualitative analysis, critical thinking, and written and oral communication needed to conduct high-level work as interdisciplinary scholars and/or practitioners. • understand the utility of environmental sources. • analyse the ecosystem and able to understand the different types of pollutions in country
Pre-Requisite	General awareness of the physical, chemical, and biological components of the environment.
Course Outline	<p>UNIT I Introduction to environmental studies</p> <ul style="list-style-type: none"> ▪ Multidisciplinary nature of environmental studies; components of environment –atmosphere, hydrosphere, lithosphere and biosphere. ▪ Scope and importance; Concept of sustainability and sustainable development; Importance of Sustainability and Sustainable development. <p>UNIT II Ecosystems</p> <ul style="list-style-type: none"> ▪ What is an ecosystem? Structure and function of ecosystem; energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems : <ul style="list-style-type: none"> ▪ Forest ecosystem ▪ Grassland ecosystem ▪ Desert ecosystem ▪ Aquatic ecosystems (ponds, streams, lakes, rivers, oceans,

estuaries)

UNIT III

Natural resources : renewable and non-renewable resources

- Land resources and land use change; land degradation, soil erosion and desertification.
- Deforestation: causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water: use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- Energy resources: renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

UNIT IV

Biodiversity and conservation

- Levels of biological diversity : genetic, species and ecosystem diversity; biogeographic zones of India; biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; endangered and endemic species of India
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; conservation of biodiversity: in-situ and ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and informational value.

UNIT V

Environmental pollution

- Environmental pollution : types, causes, effects and controls; air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: control measures of urban and industrial waste.
- Pollution case studies.

UNIT VI

Environmental policies & practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture.
- Environment Laws : Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act; International agreements; Montreal and Kyoto protocols and conservation on Biological Diversity (CBD). The Chemical Weapons Convention (CWC).
- Nature reserves, tribal population and rights, and human, wildlife conflicts, in Indian context

UNIT VII

Human communities and the environment

- Human population and growth: Impacts on environment, human health and welfares.
- Carbon foot-print.
- Resettlement and rehabilitation of project affected persons; case studies.

	<ul style="list-style-type: none"> ▪ Disaster management: floods, earthquakes, cyclones and landslides. ▪ Environmental movements: Chipko, Silent valley, Bishnios of Rajasthan. ▪ Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. ▪ Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi). <p>Unit VIII Field work</p> <ul style="list-style-type: none"> ▪ Visit to an area to document environmental assets; river/forest/flora/fauna, etc. ▪ Visit to a local polluted site – Urban/Rural/Industrial/Agricultural. ▪ Study of common plants, insects, birds and basic principles of identification. ▪ Study of simple ecosystems-pond, river, Delhi Ridge, etc.
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Suggested Readings</p> <ul style="list-style-type: none"> • Carson, R. (2002). <i>Silent Spring</i>, Houghton Mifflin Harcourt. • Gadgil, M., & Guha, R. (1993). <i>This Fissured Land: An Ecological History of India</i>. Univ. of California Press. • Gleeson, B. & Low, N. (eds.) (1999). <i>Global Ethics and Environment</i>. London, Routledge. • Gleick, P.H. (1993). <i>Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security</i>. Stockholm Env. Institute, Oxford Univ. Press. • Groom, M.J., Gary K.M., & Carroll C.R. (2006). <i>Principles of Conservation Biology</i>. Sunderland: Sinauer Associates. • Grumbine, R.E, & Pandit, M.K. (2013). <i>Threats from India's Himalaya dams</i>, Science, 339: 36-37. • McCully, P. (1996). <i>Rivers no more: the environmental effects of dams</i> (pp. 29-64). Zed Books. • McNeill, J.R. (2002). <i>Something New Under the Sun: An Environmental History of the Twentieth Century</i>, Norton. • Odum, E.P., Odum, H.T. & Andrews, J. (1971). <i>Fundamentals of Ecology</i>, Philadelphia: Saunders. • Pepper, I.L., Gerba, C.P. & Brusseau, M.L. (2011). <i>Environmental and Pollution Science</i>. Academic Press. • Rao, M.N. & Datta, A.K. (1987). <i>Waste Water Treatment</i>. Oxford and IBH Publishing Co. Pvt. Ltd. • Raven, P.H., Hassenzahl, D.M. & Berg, L.R. (2012). <i>Environment</i> (8th ed.), John Wiley & Sons. • Rosencranz, A., Divan, S., & Noble, M.L. (2001). <i>Environmental law and policy in India</i>. OUP. • Sengupta, R. (2003). <i>Ecology and economics: An approach to sustainable development</i>. OUP. • Singh, J.S., Singh, S.P. & Gupta, S.R. (2014). <i>Ecology, Environmental Science and Conservation</i>. S. Chand Publishing, New Delhi.

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| | | <ul style="list-style-type: none">• Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). (2013). <i>Conservation Biology: Voices from the Tropics</i>. John Wiley & Sons.• Thapar, V. (1998). <i>Land of the Tiger: A Natural History of the Indian Subcontinent</i>. University of California Press.• Warren, C.E. (1971). <i>Biology and Water Pollution Control</i>. WB Saunders.• Wilson, E. O. (2006). <i>The Creation: An appeal to save life on earth</i>. New York: Norton.• Brundtland Commission (1987). <i>Our Common Future</i>. World Commission on Environment and Development, Oxford University Press. |
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Course Name	Personality Development for Corporate Readiness II
Course Code	BBABA-2.6
Course Credit	3
Semester	II
Aims and Objectives	The course intends to instil certain skills and language abilities in the undergraduate students to shape their personality to be a good management graduate needed for corporate set-up.
Course Intended Learning Outcome	Upon successful completion of the course students will be able to: <ul style="list-style-type: none"> • improve their communication skills and basic conversational skills required in day to day life of a business • understand the importance of time management • understand the importance goal setting in personal and professional life • use proper etiquette and netiquette to enhance professionalism
Pre-Requisite	Only an open mind
Course Outline	<p>UNIT I</p> <p>Small talks HOWs of initiating a conversation, WHATs of Continuing a conversation, HOWs of ending a conversation, Situational Conversations.</p> <p>UNIT II</p> <p>Time Management Understanding Time Managing time: Planning and distributing time judiciously in a day</p> <p>UNIT III</p> <p>Goal Setting What is goal setting? Sharing anecdotes to mediate comprehension of the concept</p> <p>UNIT IV</p> <p>Etiquette & Netiquette What are etiquette and netiquette? Netiquettes used for business communication</p>
Evaluation	▪ Continuous assessment- 100 %

References		<p>Text Books</p> <ul style="list-style-type: none"> • Gopalswamy, R. & Mahadevan R. (2017). <i>The Ace of Soft Skills</i> (10th ed.). Pearson, India. • Dhanavel, S.P. (2017). <i>English and Soft Skills</i>, Orient Black Swan. <p>Other Readings</p> <ul style="list-style-type: none"> • Peggy Klaus (2009). <i>The Hard Truth about Soft Skills</i>. HarperCollins e-books. • Nickerson P., & MacKenzie, R.A. (2009). <i>The Time Trap : The Classic book on Time Management</i> (4th ed.). AMACOM.
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3.3 Semester III Courses

SEMESTER III			
COURSE CODE	COURSE TITLE	FULLMARKS	CREDIT
BBABA-3.1	Quantitative Methods-II	100	6
BBABA-3.2	Data Visualization and EXCEL	100	6
BBABA-3.3	Research Methods	100	6
BBABA-3.4	Data Base Management System	100	6
	Total Credit		24

Course Name	Quantitative Methods II
Course Code	BBABA-3.1
Course Credit	6
Semester	III
Aims and Objectives	The objective of the course Quantitative Methods-II is for students to describe data and make evidence based decisions using inferential statistics that are based on well-reasoned statistical arguments.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • quantitatively describe or summarize data in a meaningful way. • understand the concept of random variables and important probability distributions. • understand different types of sampling design and steps in sample design. • make evidence based decisions (/ draw conclusions) using inferential statistics.
Pre-Requisite	Elementary mathematical skills, e.g. basic algebra, basic linear algebra, fractions and introduction to calculus.
Course Outline	<p>UNIT I Descriptive Statistics:</p> <p>Introduction, Measures of Central Tendencies: Mean, Median, Mode, Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance, Co-efficient of Variation (CV), Moments, Skewness and Kurtosis.</p> <p>UNIT II Theory of Probability and Probability Distribution:</p> <p>Meaning and Concept of Probability, Laws of Probability, Bayes' Theorem, Random Variable, Mathematical Expectation, Theorems on Expectation, Binomial Distribution, Poisson Distribution and Normal, Distribution</p> <p>UNIT III Sampling and Sampling Distribution:</p> <p>Introduction to sampling, Random Sampling Vs. Non Random Sampling, Types of Sampling: Simple Random Sampling, Stratified Random Sampling,</p>

	<p>Systematic Sampling and Cluster Sampling, Sampling Distributions, Standard Error, Sampling Distribution of Sample Mean and Sample Proportion, Central Limit Theorem.</p> <p>UNIT IV Correlation and Regression Analysis:</p> <p>Concept of Correlation, Types, Scattered Diagram, Properties of Correlation Coefficient (CC) , Karl Pearson CC, Spearman’s Rank CC., Regression, Properties of Regression Coefficients, Lines of Regression</p> <p>UNIT V Time Series Analysis:</p> <p>Definition and Utility of Time Series Analysis, Components, trend analysis, Semi Average , Moving Average Methods, Methods of Least Square</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Gupta S.C., & Gupta I. (2018). <i>Business Statistics</i>. Himalaya Publishing House. • Goon, A.M., Gupta, M.K. & Dasgupta, B. (2016). <i>Fundamentals of Statistics</i> (vol. I & II). World Press Pvt. Ltd.

Course Name	Data Visualization and EXCEL
Course Code	BBABA-3.2
Course Credit	6
Semester	III
Aims and Objectives	Data Visualization is an important aspect of data analytics that converts numbers to visual communication. Today, the high level presentations require analytical results, to be presented visually. Data visualization helps find relevance among the millions of variables, communicate concepts and hypotheses to others, and even predict the future. This course provides the necessary inputs required on various techniques and methodology of Data Visualizations. Further this course provides inputs into how reports can be developed using the help of EXCEL.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • know the basics of data visualization and understand the importance of data visualization. • design effective data visualizations in order to provide new insights into the data or communicate information to others. • properly document and organize data and visualizations in order to prepare them for reuse. • visualize and analyze data with Excel.
Pre-Requisite	Basic statistics, basic knowledge of Excel
Course Outline	<p>UNIT I</p> <p>Introduction to Data Visualization:</p> <p>Stages in visualizing data, types of visualization, pre-processing and processing of data, find data, evaluate, extract, clean, correct and merge data, forming the right questions, forming connections and correlations, making successful data visualizations, publishing and disseminating data visualizations.</p> <p>UNIT II</p> <p>Setting the Context of Data Visualization:</p> <p>Setting the Purpose and Identifying Key Factors, Demonstrating Editorial</p>

	<p>Focus and Learning About Your Data, Conceiving and Reasoning Visualization Design Options, Taxonomy of Data Visualization Methods, Constructing and Evaluating Your Design Solution.</p> <p>UNIT III</p> <p>Setting the Business Perspective:</p> <p>Five Visual BI Artifacts, Scorecards: Visualizing Performance Improvement, Analytic Patterns: From Time-series to Correlations and beyond, Rules for Visual Insight Designers, Prepping Data for Visualization, Collaborative Analytics.</p> <p>UNIT IV</p> <p>Tools for Data Visualizations:</p> <p>Tools for creating visualizations, Google Spreadsheet, Google Fusion Tables, Tableau, and Data wrapper. R / SAP Lumira / COGNOS etc.</p> <p>UNIT V</p> <p>Excel:</p> <p>Spreadsheet (Creation, Data handling, Formatting), Data Manipulation in Spreadsheet, Analysis Tools in Spreadsheet, Spreadsheet Functions (Mathematical, Statistical and Financial functions), Data Visualization using Excel.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Walkenbach, J. (2012). <i>Excel 2012 Bible</i>. Wiley. • Alexander, M., Decker, J., & Wehbe, B. (2016). <i>Microsoft Business Intelligence Tools for Excel Analysts</i>. Wiley. <p>Other Readings:</p> <ul style="list-style-type: none"> • Alexander, M., & Walkenbach, J. (2013). <i>Excel dashboards and reports</i> (Vol. 17). John Wiley & Sons.

Course Name	Research Methods
Course Code	BBABA-3.3
Course Credit	6
Semester	III
Aims and Objectives	This course aims to develop and extend students' knowledge of quantitative and qualitative research methods as well as facilitating their understanding and ability to apply the key methodological principles in the design of different types of research to solve business problems.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand various types of business research, and scope of business research. • understand different data collection techniques, sampling designs, measurement concept, and data analysis techniques. • analyse major stages of a business research process. Analyse data in discovering quantitative messages contained in the data to support business decision-making. • apply data collection techniques, sampling design and data analysis techniques in business decision making problems.
Pre-Requisite	Introductory probability, basic number system.
Course Outline	<p>UNIT I</p> <p>Introduction to Business Research:</p> <p>Importance of Research in Business, Types of Research, Scope of Business Research</p> <p>UNIT II</p> <p>Research Process and Design:</p> <p>Research Process, Steps in Research Process, Research Design, Types of Research Design</p> <p>UNIT III</p> <p>Data Collection and Sampling Design:</p>

	<p>Data Collection Techniques & Methods, Sampling & Sampling designs.</p> <p>UNIT IV</p> <p>Measurement and Scaling Techniques:</p> <p>Attitude Measurement & Scales in Research</p> <p>UNIT V</p> <p>Data Analysis and Report Writing:</p> <p>Statistical Analysis & Interpretation of Data, Parametric and Non Parametric Tests, Multivariate Analysis Techniques, Report writing</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Chawla D., & Sondhi N. (2016). <i>Research Methodology</i> (2nd ed.). Vikash publishing. <p>Reference Books</p> <ul style="list-style-type: none"> • Zikmund, W.G., Barry, J., Jon, C.C., & Griffin, M. (2013). <i>Business Research Methods</i> (9th ed.). Cengage. • Cooper D., & Schindler, P. (2013). <i>Business Research Methods</i> (12th ed.). Tata McGraw Hill. • Paneerselvam, R. (2014). <i>Research Methodology</i> (2nd ed.). PHI, New Delhi. • Kothari, C.R., & Garg, G. (2019). <i>Research Methodology</i> (4th ed.). New Age International Publishers.

Course Name	Data Base Management System
Course Code	BBABA-3.4
Course Credit	6
Semester	III
Aims and Objectives	The objective of the course is to present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a DBMS.
Course Intended Learning Outcome	<p>Upon successful completion of the course the Learner will be able to:</p> <ul style="list-style-type: none"> • describe the fundamental elements of relational database management systems • understand the basic concepts of relational data model, entity-relationship model, relational • know database design, relational algebra and SQL. • design ER-models to represent simple database application scenarios • convert the ER-model to relational tables, populate relational database and formulate SQL • improve the database design by normalization. • familiar with basic database storage structures and access techniques.
Pre-Requisite	The proper understanding of data structures and algorithms will help to understand the DBMS quickly.

Course Outline	<p>UNIT I</p> <p>Introduction:</p> <p>Characteristics of database approach, data models, DBMS architecture and data independence.</p> <p>UNIT II</p> <p>E-R Modeling:</p> <p>Entity types, Entity set, attribute and key, relationships, relation types, roles and structural constraints, weak entities, enhanced E-R and object modeling, Sub classes; Super classes, inheritance, specialization and generalization.</p> <p>UNIT III</p> <p>File Organization:</p> <p>Indexed sequential access files; implementation using B & B++ trees, hashing, hashing functions, collision resolution, extendible hashing, dynamic hashing approach implementation and performance.</p> <p>UNIT IV</p> <p>Relational Data Model:</p> <p>Relational model concepts, relational constraints, relational algebra, SQL: SQL queries, programming using SQL.</p> <p>UNIT V</p> <p>EER and ER to relational mapping:</p> <p>Data base design using EER to relational language.</p> <p>Data Normalization: Functional Dependencies, Normal form up to 3rd normal form. Concurrency Control: Transaction processing, locking techniques and associated, database recovery, security and authorization. Recovery Techniques, Database Security.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Silberschatz, A., Korth, A., & Sudarshan, S. (2013). <i>Database Systems Concepts</i> (6th ed.). McGraw Hill. • Melton J., & Simon, A.R. (1993). <i>Understanding the new SQL: A complete Guide</i> (1st ed.). Morgan Kaufmann Publishers.

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| | | <ul style="list-style-type: none">• Majumdar A.K., & Bhattacharya, P. (1996). <i>Database Management Systems</i>. TMH.• Dsai, B. (1991). <i>An Introduction to database systems</i>. Galgotia Publications. |
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3.4 Semester-IV Courses

SEMESTER 1V			
COURSE CODE	COURSE TITLE	FULLMARKS	CREDIT
BBABA-4.1	Data Mining and Warehousing	100	6
BBABA-4.2	Introduction to Business Analytics	100	6
BBABA-4.3	Financial Management	100	6
BBABA-4.4	Entrepreneurship	100	3
	Total Credit		21

Course Name	Data Mining and Warehousing
Course Code	BBABA-4.1
Course Credit	6
Semester	IV
Aims and Objectives	<p>Data mining entails extraction of unique knowledge from large amounts of data. This course introduces the applications of concepts, issues, tasks and techniques of data mining. Finally, the course also presents the idea of distilling business intelligence from data and its presentation.</p> <p>The objective of the course is to give students a good overview of the ideas and techniques which are behind recent development in the data warehousing and online analytical processing (OLAP) fields, in terms of data models, query language, conceptual design methodologies and storage techniques.</p>
Course Intended Learning Outcome	<p>Upon successful completion of the course the Learner will be able to:</p> <ul style="list-style-type: none"> • understand Data Mining concepts • acquire knowledge of data models, query language, conceptual design methodologies and storage techniques. • understand about classification and clustering
Pre-Requisite	Basic knowledge in IT concepts, Database, Data analysis
Course Outline	<p>UNIT I</p> <p>Introduction Data Mining tasks – Data Mining versus Knowledge Discovery in Data bases – Relational databases – Data warehouses – Transactional databases – Object oriented databases – Spatial databases – Temporal databases – Text and Multimedia Databases – Heterogeneous databases - Mining Issues – Metrics – Social implications of Datamining .</p> <p>UNIT II Data Preprocessing Why Preprocess the data , Data cleaning ,Data Integration, Data Transformation , Data Reduction , Data Discretization.</p>

	<p>UNIT III Data Mining Techniques, Classification and Prediction Association Rule Mining ,The Apriori Algorithm ,Multilevel Association Rules , Multidimensional Association Rules , Constraint Based Association Mining Issues regarding Classification and Prediction , Decision Tree induction , Bayesian Classification , Back Propagation , Classification Methods , Prediction , Classifiers accuracy</p> <p>UNIT IV Clustering Techniques Cluster Analysis , Clustering Methods , Hierarchical Methods , Density Based Methods , Outlier Analysis , Introduction to Advanced Topics: Web Mining , Spatial Mining and Temporal Mining</p> <p>UNIT V Data Warehousing Need for data warehousing, The building blocks of a Data warehouse, Architecture and Infrastructure: Data Warehouse Architecture, Infrastructure and Metadata Management Principles of Dimension Modeling, Introduction to Dimensional Modeling, Extract Transform Load (ETL) Cycle, Implementation and Maintenance: Physical design process, Aggregates and Indexing. Data Warehouse Deployment</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Han, J., Kamber, M. (2001). <i>Data Mining: Concepts and Techniques</i>. Morgan Kaufmann, New Delhi. • Pang, P., Steinbach, M., & Kumar, V. (2016). <i>Introduction to Data Mining</i>. Pearson • Dunham, M.H. (2003). <i>Data Mining : Introductory and Advanced Topics</i>. Pearson Education, Delhi. <p>Other Readings</p> <ul style="list-style-type: none"> • Sivananda, S.N., & Sumathi S. (2006). <i>Data Mining</i>. Thomsan Learning, Chennai.

Course Name	Introduction To Business Analytics
Course Code	BBABA-4.2
Course Credit	6
Semester	IV
Aims and Objectives	This course will present basic concepts of data analytics techniques as applied to business. It also focuses on learning practical business analysis skills that can be used in the workplace. This course attempts to add value in terms of specific use of statistical analysis packages in business analysis. This course develops fundamental knowledge and skills for applying statistics to business decision making.
Course Intended Learning Outcome	Upon successful completion of the course the learner will be able to: <ul style="list-style-type: none"> • develop skills for framing the business problems. • develop skills for analysis of business problems. • develop an analytical mind-set.
Pre-Requisite	Basic knowledge in Statistical tools and techniques
Course Outline	<p>UNIT I Introduction Introduction to Business Analytics, Why Analytics, Business Analytics : The Science of Data Driven Decision making ,Concept of Descriptive, Predictive and Prescriptive Analytics, Big Data Analytics, Web and Social Media Analytics, Framework, Challenges and Future of Data Driven Decision Making.</p> <p>UNIT II Descriptive Analytics Introduction to Descriptive Analytics, Data Types and Scales, Types of Data Measurement Scales, Population and Samples, Measure of Central Tendency, Percentile , Decile and Quartile, Measures of Variation: Range, IQD, Variance and SD, Measures of Shapes, Data Visualization: Histogram, Bar Chart, Pie Chart, Scatter Plot, Coxcomb Chart, Box Plot.</p> <p>UNIT III Introduction To Probability, Sampling And Estimation Probability: Probability Theory, Terminology, Fundamental Concepts of Probability, Random Variable, Probability Distributions: Binomial, Poisson, Normal.</p>

	<p>Introduction to Sampling, Types of Sampling: Probabilistic and Non-Probability Sampling, Central Limit Theorem, Estimations of Population Parameters, Types of Estimations: Point and Interval, .</p> <p>UNIT IV Regression Analysis Simple Regression Analysis(SLR) : Introduction,SLR Model Building, Estimation of parameters using Ordinary Least Squares. Multiples Linear Regression (MLR) : Introduction, Ordinary Least Squares Estimation of MLR, MLR Model Bulding, Part Correlation and Regression Model Building, Interpretation of MLR Coefficients,Standardised Regression Co-efficients. Logistics Regression (LR) : Introduction- Classification Problems, Introduction to Binary LR, Estimation and Interpretation of Parameters of LR, LR Model Diagnostics: Omnibus Test, Wald’s Test, Hosmer-Lemeshow Test , Psedo R Square.</p> <p>UNIT V Prescriptive Analytics Introduction to Prescriptive Analytics, Linear Programming (LP), LP Model Building, LPP Terminologies, Assumptions of LP, Sensitivity Analysis in LPP, Solving LPP by Graphical Method, Range of Optimality , Range of Shadow Price, Linear Integer Programming.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Prasad, R.N., & Acharya, S. (2011), <i>Fundamentals Of Business Analytics</i>. John Wiley & Sons. • Kumar, U.D. (2017). <i>Business Analytics: The Science of Data-driven Decision Making</i>.Wiley India. <p>Other Readings</p> <ul style="list-style-type: none"> • PPTs and Handouts will be shared.

Course Name	Financial Management
Course Code	BBABA-4.3
Course Credit	6
Semester	IV
Aims and Objectives	To familiarize the students with the principles and practices of financial management.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand Financial Management concepts • acquire the knowledge of financial analysis • understand Risk and Return, Capital Budgeting
Pre-Requisite	Basic knowledge of Accounting , Basic idea of calculation using software
Course Outline	<p>UNIT I</p> <p>Concepts, objectives and scope of financial management, functions of a finance manager in contemporary business environment.</p> <p>UNIT II</p> <p>Financial Analysis: Tools of analysis, Common Size Statements, Trend Percentage, Ratio analysis, Preparation and interpretation.</p> <p>UNIT III</p> <p>Time value of money, concept of risk and returns: Risk and return calculations for individual security and portfolio concept.</p> <p>UNIT IV</p> <p>Cost of Capital, Cost of Debt (Redeemable & Irredeemable), Cost of Preference Share Capital, Cost of Equity Share, Cost of Capital, Cost of Retained Earnings</p> <p>UNIT V</p> <p>Capital Budgeting, Process, Techniques of capital budgeting, Limitations of Capital Budgeting</p>

Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Chandra, P. (2017). <i>Financial Management</i> (9th ed.). TMH. • Van Horne, J.C., & Dhamija S. (2015). <i>Financial Management & Policy</i> (12th ed.). Pearson Education India. • Weston, J.F. & Brigham, E.F. (1972). <i>Managerial Finance</i> (4th ed.). Rinehart Winston Holt. <p>Other Readings</p> <ul style="list-style-type: none"> • Brigham, E.F., & Houston, J.F. (2016). <i>Fundamentals of Financial Management</i> (15th ed.). C.B.S. International. • Sahoo, P.K. (2016). <i>Financial Management</i>, Pen Point Communication. • Khan, M.Y., & Jain, P.K. (2018). <i>Financial Management</i>. Tata McGraw-Hill.

Course Name	Entrepreneurship
Course Code	BBABA-4.5
Course Credit	3
Semester	IV
Aims and Objectives	The objective of the course is to make business management students understand the nature of Entrepreneurship, and its importance. This will allow them to get the required intuition and interest in starting their own start-up.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand about Entrepreneurship • acquire knowledge of Business Model Validation • understand about Sales and Marketing with Business regulations
Pre-Requisite	Basic Management and Financial knowledge
Course Outline	<p>UNIT I</p> <p>Introduction to Entrepreneurship & Opportunity Analysis</p> <p>Define Entrepreneurship, Entrepreneurship as a Career option, Benefits and Myths of Entrepreneurship, Success Rate of Entrepreneurs related to Experience and Family Backup, Characteristics, Qualities and Skills of Entrepreneurship, Entrepreneurial Propensity, Life as an Entrepreneur, Impact of Entrepreneurship on Economy and Society.</p> <p>UNIT II</p> <p>Opportunity & Customer Analysis</p> <p>Identify your Entrepreneurial Style, Identify Business Opportunities, and Methods of finding and understanding Customer Problems, Process of Design Thinking, Identify Potential Problems, Craft your Values Proportions, Customer-driven Innovation.</p>

	<p>UNIT III</p> <p>Business Model & Validation</p> <p>Types of Business Models, Lean approach, the Problem-Solution Test, Solution Interview Method, and Identify Minimum Viable Product (MVP), Build-Measure-Learn Feedback loop.Product-market fit test.</p> <p>UNIT IV</p> <p>Economics & Financial Analysis</p> <p>Revenue sources of Companies, Income Analysis, and Costs Analysis - Product Cost and Operations Cost, basics of Unit Costing,Advantages and disadvantage of various Sources of Finance, Investors Expectations, Return on Investment,Practice pitching to Investors and Corporate.</p> <p>UNIT V</p> <p>Marketing & Business Regulations</p> <p>Building Digital presence and leveraging Social Media,Measuring effectiveness of Channels, Customer Decision-making Process,Sales Plans and Targets,Business regulations of starting and operating a Business,Start-up Ecosystem, Government schemes.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 50 % ▪ End Semester Assessment : 50 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Roy, R. (2012). <i>Entrepreneurship</i> (2nd ed.). Oxford Higher Education. • Hisrich, R.D., Peters, M.P., & Shepherd, D.A. (2017). <i>Entrepreneurship</i> (10th ed.). Prentice Hall. • Zimmerer, T.W., & Scarborough, N.M. (2016). <i>Essentials of Entrepreneurship and Small Business Management</i>. Prentice Hall. <p>Other Readings</p> <ul style="list-style-type: none"> • Nagarajan, K. (2015). <i>Project Management</i> (7th ed.). New Age International (P) Limited. • Desai, V. (2012). <i>Dynamics of Entrepreneurship Development</i> (6th ed.) Himalaya Publishing House.

3.5 Semester V Courses

SEMESTER V			
COURSE CODE	COURSE TITLE	FULLMARKS	CREDIT
BBABA-5.1	Statistical Data Modelling Using R	100	6
BBABA-5.2	Cyber Law	50	3
BBABA-5.3	HRM & HR Analytics	100	6
BBABA-5.4	Strategic Management	100	6
BBABA-5.5	Summer Project	100	6
	Total Credit		27

Course Name	Statistical Data Modelling Using R
Course Code	BBABA-5.1
Course Credit	6
Semester	V
Aims and Objectives	<p>Objective of this course is to impart knowledge on use of data mining techniques for deriving business intelligence to achieve organizational goals. Use of R (statistical computing software) to build, assess, and compare models based on real datasets and cases with an easy-to-follow learning curve.</p> <p>This course will review and expand upon core topics in statistics and probability, particularly by initiating the beneficiaries of the course to R for statistical computing.</p>
Course Intended Learning Outcome	<p>Upon successful completion of the course the Learner will be able to:</p> <ul style="list-style-type: none"> • develop skills to identify the characteristics of datasets and compare the trivial data and big data for various applications • understand and apply descriptive and predictive tools. • develop models to facilitate business decision.
Pre-Requisite	Basic understanding in Statistics
Course Outline	<p>UNIT I</p> <p>Learn how to load data, plot a graph viz. histograms (equal class intervals and unequal class intervals), box plot, stem-leaf, frequency polygon, pie chart, ogive with graphical summaries of data.</p> <p>UNIT II</p> <p>Generate automated reports giving detailed descriptive statistics, correlation and lines of regression.</p> <p>UNIT III</p> <p>Random number generation and sampling procedures. Fitting of polynomials and exponential curves. Application Problems based on fitting of suitable distribution, Normal probability plot.</p> <p>UNIT IV</p>

	<p>Simple analysis and create and manage statistical analysis projects, import data, code editing and data cleaning.</p> <p>UNIT V</p> <p>Basics of statistical inference in order to understand hypothesis testing and compute p-values and confidence intervals.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Gardener, M. (2012). <i>Beginning R: The Statistical Programming Language</i>. Wiley Publications. • Braun, W.J., & Murdoch, D.J. (2007). <i>A First Course in Statistical Programming with R</i>. Cambridge University Press, New York • Moore, D.S., & McCabe, G.P. & Craig, B.A. (2014). <i>Introduction to the Practice of Statistics</i>. W.H. Freeman • Cunningham, B.J. (2012). <i>Using SPSS: An Interactive Hands-on approach</i>. • Cho, M,J., & Martinez, W.L. (2014). <i>Statistics in MATLAB: A Primer</i>. Chapman and Hall/CRC

Course Name	Cyber Law
Course Code	BBABA-5.2
Course Credit	3
Semester	V
Aims and Objectives	The course would aim, broadly to impart basic knowledge of the important business laws along with relevant case laws and cyber law.
Course Intended Learning Outcome	<p>Upon successful completion of this course students will be able</p> <ul style="list-style-type: none"> ▪ to critically evaluate ongoing developments in law relating to information technologies. ▪ to display an understanding of how these developments relate to one another. ▪ to evaluate those rules and theories in terms of internal coherence and practical outcomes.
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.
Course Outline	<p>UNIT I</p> <p>An Overview Cyber Law: National Framework</p> <p>This section introduces the entire gamut of Cyber laws; Regulation of cyber space, Scope of Cyber laws – e-commerce; online contracts; IPRs (copyright, trademarks and software patenting); e-taxation; e-governance and cyber-crimes, Cyber law in India with special reference to Information Technology Act, 2000</p> <p>UNIT II</p> <p>International Framework of Cyber Law</p> <p>This section presents the International Legal Regime relating to Cyber Crimes, European Convention on Cyber Crimes, Hague Convention on Jurisdiction and Foreign, Judgments: Jurisdiction, Agreement.</p> <p>UNIT III</p> <p>E-Commerce and Cyber Crime</p> <p>International legal regime relating to E-Commerce: UNCITRAL Model Law on Electronics Commerce 1996, International legal regime relating to</p>

		<p>Intellectual Property</p> <p>UNIT IV</p> <p>Cyber Crimes</p> <p>This section expounds upon the nature of cyber-crimes; Classification of cyber-crimes, Distinction between cyber-crime and conventional crimes, Reasons for commission of cyber-crime, Cyber forensic</p> <p>UNIT V</p> <p>Kinds of Cyber-Crimes</p> <p>Kinds of cyber-crimes consists of; cyber stalking; forgery and fraud; crime related to IPRs; Cyber terrorism; computer vandalism, Regulation of cyber-crimes, Issues relating to Investigation, Jurisdiction & Evidence.</p>
Evaluation		<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References		<ul style="list-style-type: none"> • Robert, B., Darrow, J.J, & Gerald , R.F. (2012). <i>Cyber Law: Text & Cases</i>. Chicago: Cengage Learning.

Course Name	HRM and HR Analytics
Course Code	BBABA-5.3
Course Credit	6
Semester	V
Aims and Objectives	This course introduces students to the concept of HRM and HR Analytics and sensitizes them to its rapid uptake in organizations intending to improve employee performance. This course explains the usage of people-data in analytical processes that helps to solve business problems. The course will provide insights regarding the process of gathering HR data and the application of analytic processes in the domain of human resources. The analytical concept will be integrated into various HR processes such as recruitment, performance management, leadership development, job design, compensation, and retention. Data-driven decisions will help HR professionals to acquire more efficiency resulting in higher productivity and improved organizational performance.
Course Intended Learning Outcome	<p>Upon successful completion of the course the student will be able to:</p> <ul style="list-style-type: none"> • understand various functions of HRM. • understand how HR analytics demonstrate basic methods analyzing data to interpret and support HR decisions. • apply internal and external human resource metrics and their key indicators. • understand how data can be analyzed to make decisions on people-related issues in an organization. • analyze which Human Capital metrics are relevant to the strategic business goals and how to implement those successfully.
Pre-Requisite	Basic understanding in fundamentals of Management and Statistics
Course Outline	<p>UNIT I</p> <p>Introduction to HR Analytics</p> <p>Concepts of HRM, Introduction to HR Analytics, Evolution of HR Analytics, HR Information systems and data sources, HR Metric and HR Analytics, Evolution of HR Analytics; HR Metrics and HR Analytics; Intuition versus</p>

	<p>analytical thinking; HRMS/HRIS and Data Sources</p> <p>UNIT II</p> <p>HR Systems and Data-Based Decision Making</p> <p>Integration of the systems with better data collection methods, analysis tools, and effective reporting workflow to make data-driven business decisions. With easy data accessibility on the latest information related to various sub-systems like time and attendance, manpower planning schedules, payroll reports, performance metrics, and other HR data, Linking the data insights to develop data-driven HR organizations, best practices across HR Analytics life cycle.</p> <p>UNIT III</p> <p>Understanding the Cost of HR Initiatives:</p> <p>Satisfaction, Commitment, and Engagement as Job Outcomes, The Logic Connecting Employee Attitudes, Behaviors, and Financial Outcomes, The Logic of Employee Turnover: Separations, Acquisitions, Cost, and Inventory, Voluntary Versus Involuntary Turnover, Functional Versus Dysfunctional Turnover,</p> <p>UNIT IV</p> <p>Acquisition and Performance Analytics</p> <p>Recruitment and Selection Analytics: Evaluating the Reliability and validity of selection models, Finding out selection bias, Predicting the performance and turnover, Performance Analysis: Predicting employee performance, Training requirements, evaluating training and development, Optimizing selection and promotion decisions.</p> <p>UNIT V</p> <p>Measuring Results in HR</p> <p>Use of Metrics to measure results in HR – Process vs. Outcome, Efficiency vs. Effectiveness, and Lead vs. Lag. Learn to apply the analytics maturity model to plan HR interventions in organizations.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Edwards, M.R., & Edwards, K. (2019). <i>Predictive HR analytics: Mastering the HR metric</i>. Kogan Page Publishers. • Fitz-Enz, J., & John Mattox, I.I. (2014). <i>Predictive analytics for human</i>

Course Name	Strategic Management
Course Code	BBABA-5.4
Course Credit	6
Semester	VI
Aims and Objectives	<p>This course gives an overview of all essential aspects of business policy and strategic management. The intention is to provide students with strategy insights; reflect on strategic dilemmas; and practice strategy tools to enable students to become strategic thinkers.</p> <ul style="list-style-type: none"> • to encourage the understanding of the many, often conflicting, schools of thought and to facilitate the gaining of insight into the assumptions, possibilities and limitations of each set of theories and tools; • to develop the student's ability to think strategically, understand the language of business, craft strategies on paper and verbally in class discussion, critically reflect on existing theories and tools, to creatively combine or develop frameworks and tools and use them where useful; • to provide insights into strategies of Indian/Asian companies through cases, speakers and in-class examples
Course Intended Learning Outcome	<p>Upon successful completion of the course the Learner will be able to:</p> <ul style="list-style-type: none"> • get an exposure of various perspectives and concepts in the field of Strategic Management • understand the principles of strategy formulation, implementation and control in organizations. • develop skills for applying these concepts to the solution of business problems
Pre-Requisite	Basic knowledge of Management Functions
Course Outline	<p>UNIT I</p> <p>Introduction to Strategic Management</p> <p>Course Introduction, What is Strategy, Strategic Management., An Overview of Strategy, Hierarchical levels of strategy, Nature and Importance, of Business, Policy/Strategy and Strategy Formulation.</p> <p>UNIT II</p>

	<p>Model of the Strategic Management Process</p> <p>A Theoretical Model of the Strategic Management Process, Missions, Goals & Objective, Social Responsibilities & Managerial & Organizational Styles.</p> <p>UNIT III</p> <p>Environmental and Industry Analysis</p> <p>External Analysis Industry Analysis & Trends, PEST Analysis, 5 Forces Analysis, Blue Ocean Strategy. Internal Analysis: Competitive Advantage, Core Competence, Organizational Structure, Process, Culture.</p> <p>UNIT IV</p> <p>Strategy Formulation</p> <p>Designing Business Level Strategies: Cost Leadership, Differentiation. Designing Corporate Level Strategies: Diversification, Vertical Integration, Portfolio vs Synergy, BCG Matrix. Network Level Strategies Alliances, Joint Ventures, Competition vs Cooperation, Organizational Dependencies. Global Strategies: Internationalization: Motivations & Patterns,</p> <p>UNIT V</p> <p>Strategy Implementation & Change Management</p> <p>Strategy Implementation & Strategic Change: Strategy Implementation, Re-Positioning the Organization & Strategy Execution.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Book</p> <ul style="list-style-type: none"> ▪ Hill, C.W., Jones, G.R., & Schilling, M.A. (2014). <i>Strategic management: Theory & cases: An integrated approach</i>. Cengage Learning. <p>Reference Book</p> <ul style="list-style-type: none"> ▪ Gordon, W. (2015). <i>Modern Competitive Strategy</i> (4th ed.). Tata McGraw Hill publications. <p>Journal papers</p> <ul style="list-style-type: none"> • Prahalad, C.K., & Hamel G. (1990). <i>The core competence of the corporation</i>, Harvard Business Review, 68 (3), 79-93. • Collis, D.J. & Montgomery, C.A. (2008). <i>Competing on Resources</i>.

		<p>Harvard Business Review, 86(7/8), 140-150.</p> <ul style="list-style-type: none"> • Porter, M.E. (2008). <i>The five competitive forces that shape strategy</i>. Harvard Business Review, 86(1), 78-93. • Kim, W.C. & Mauborgne, R. (2004). <i>Blue ocean strategy</i>. Harvard Business Review, 82(10), 76-84. • G., Martins, K. & Powers, E. (2008). <i>The Secrets to Successful Strategy Execution</i>. Harvard Business Review, 86(6), 60-70.
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BBABA-5.6 SUMMER PROJECT

At the end of 4th semester, a student has to undertake a summer project in an organization or a research based project under the guidance of a faculty for 6 weeks during May-June to gain practical insight into real life business environment. During the summer training, he/she will work under supervision of a company executive if placed in a company. After the completion of the field work the student is required to work under the guidance of a faculty member for another 2 weeks to prepare a report. The report shall be evaluated out of 100 marks by the concerned faculty member.

3.6 Semester VI Courses

SEMESTER VI			
COURSE CODE	COURSE TITLE	FULLMARKS	CREDIT
BBABA-6.1	Big Data Analytics	100	6
BBABA-6.2	Supply Chain Analytics	100	6
BBABA-6.3	Financial Analytics	100	6
BBABA-6.4	Marketing Analytics	100	6
	Total Credit		24

Course Name	Big Data Analytics
Course Code	BBABA-6.1
Course Credit	6
Semester	VI
Aims and Objectives	Analyzing big data allows analysts, researchers, and business users to make better and faster decisions using data that was previously inaccessible or unusable. Using advanced analytics techniques such as text analytics, machine learning, predictive analytics, data mining, statistics, and natural language processing, businesses can analyze previously untapped data sources independent or together with their existing enterprise data to gain new insights resulting in significantly better and faster decisions. This course provides insightful inputs on concept of big data, big data analytics
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand basics of Big Data. • appreciate the various Big Data Platforms. • understand the various Big Data storage and processing techniques. • learn about the “Big data” in enterprises. • appreciate the Big Data lifecycle.
Pre-Requisite	Basic knowledge of Business Analytics
Course Outline	<p>UNIT I</p> <p>Introduction to Big Data</p> <p>Fundamental Terminologies and Concepts, A Brief History of Big Data, Business Drivers that have led to Big Data Innovations, Characteristics of Big Data, Benefits of adopting Big Data, Challenges and Limitations of Big Data.</p> <p>UNIT II</p> <p>Fundamentals of Big Data Analytics</p> <p>Basic Big Data Analytics, “Big Data” in the Enterprise, Big Data and Traditional Business Intelligence and Data Warehouses, Big Data Visualization, Common Adoption Issues, Planning for Big Data Initiatives,</p>

	<p>New Roles Introduced by Big Data Projects, Emerging Trends.</p> <p>UNIT III</p> <p>Big Data Platforms</p> <p>Development of scalable and yet elastic virtualized platforms using innovation to cluster commodity hardware components (either cycle harvesting from local resources or through cloud based utility computing services) coupled with open source tools and technology.</p> <p>Big Data Storage and Processing</p> <p>Big Data Storage (Query Workload, Sharding, Replication, CAP, ACID, BASE), Big Data Processing (Parallel Data Processing, Distributed Data Processing, Shared-Everything/Nothing Architecture, SCV).</p> <p>UNIT IV</p> <p>“Big Data” in the Enterprise</p> <p>The New Information Management Paradigm, Big Data Implications for Industry, Emerging Database Landscape, Application Architectures for Big Data and Analytics, Data Modeling Approaches for Big Data and Analytics Solutions, Big Data Analytics Methodology, Extracting Value from Big Data: In-Memory Solutions, Real Time Analytics and Recommendation Systems.</p> <p>UNIT V</p> <p>The Big Data Analysis Lifecycle (From Dataset Identification to Integration, Analysis and Visualization)</p> <p>Common Analysis and Analytics Techniques, A/B testing, Regression, Correlation, Text Analytics, Sentiment Analysis, Time Series Analysis, Network Analysis, Spatial Analysis, Automated Recommendation, Classification, Clustering, Machine Language, Natural Language, Semantics, Data Visualization and Visual Analysis, Assessing Hierarchies, Part-to-Whole Relationships, Plotting Connections and Relationships, Mapping Geo-Spatial Data, Foundational Big Data Technology Mechanisms, Big Data & Cloud Computing.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Bahga, A., & Madiseti, V. (2016). <i>Big data science & analytics: A</i>

hands-on approach. VPT.

- Simon, W. (2016). *Big Data Analytics with R*. Packt Publishing Ltd, UK.

Course Name	Supply Chain Analytics
Course Code	BBABA-6.2
Course Credit	6
Semester	VI
Aims and Objectives	To treat the subject in depth by emphasizing on the advanced quantitative models and methods in logistics and supply chain management and its practical aspects and the latest developments in the field.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand application Data Analytics techniques in Supply Chain Management • appreciate the various Big Data Platforms related to SC.
Pre-Requisite	Basic knowledge of Business Analytics and Supply Chain Management
Course Outline	<p>UNIT I Warehousing Decisions , Mathematical Programming Models , P-Median Methods , Guided LP Approach Balmer – Wolfe Method , Greedy Drop Heuristics , Dynamic Location Models, Space Determination and Layout Methods</p> <p>UNIT II Inventory Management , Inventory aggregation Models , Dynamic Lot sizing Methods , Multi-Echelon Inventory models , Aggregate Inventory system and LIMIT</p> <p>UNIT III Transportation , Network Models , Notion of Graphs, Minimal Spanning Tree, Shortest Path Algorithms , Maximal Flow Problems , Multistage Transshipment and Transportation Problems , Set covering and Set Partitioning Problems , Traveling Salesman Algorithms , Advanced Vehicle Routing Problem Heuristics , Scheduling Algorithms-Deficit function Approach and Linking Algorithms</p> <p>UNIT IV Analytic Hierarchy Process ,Data Envelopment Analysis : Applications in</p>

		<p>Supply Chain Decision</p> <p>UNIT V</p> <p>Risk Analysis in Supply Chain , Measuring transit risks, supply risks, delivering risks , Risk pooling strategies , Fuzzy Logic and Techniques-Application in SCM</p>
Evaluation		<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References		<p>Text Books</p> <ul style="list-style-type: none"> • Sanders, N.R. (2014). <i>Big data driven supply chain management: A framework for implementing analytics and turning information into intelligence</i>. Pearson Education. • Blokdyk, G. (2018). <i>Supply Chain Big Data Analytics</i> (2nd ed.). 5STARCOoks.

Course Name	Financial Analytics
Course Code	BBABA-6.3
Course Credit	6
Semester	VI
Aims and Objectives	This course explains the fundamentals of Financial Analytics to explore how financial statement data and non-financial metrics can be linked. This can lead to enhancement of financial performance of an organization through more precise forecasts and optimization of operations. This exposes the learner as to how data should be used to assess to drive financial performance and to strategize future financial scenarios. This course will explore many areas in which data accounting provides insight into other business areas including consumer behavior predictions, corporate strategy, risk management, optimization, and more.
Course Intended Learning Outcome	Upon successful completion of the course the Learner will be able to: <ul style="list-style-type: none"> • understand the application of quantitative methods of financial analysis in a business • analyze proposals for financial investment in a meaningful manner • appreciate the concepts and apply sound techniques for analysis of financial data to investment proposals. • understand various analytical techniques of capital budgeting, working capital management, cash flow management, and optimal capital management.
Pre-Requisite	Basic knowledge of Financial Management and Business Analytics
Course Outline	<p>UNIT I</p> <p>Introduction to Financial Analytics</p> <p>In this section, learners appreciate the Key concepts and techniques of analytics as applied to financial data. Drawing inferences from data is explained along with practical applications from finance field to depict real time applications.</p> <p>UNIT II</p>

	<p>Analytical Approaches and Tools</p> <p>This section presents the evolution of Analytical Approaches and Analytic Tools over the years. Various types of Analytic Tools (R/SPSS/SAS) are presented with their applications to financial data.</p> <p>UNIT III</p> <p>Ratios and Forecasting</p> <p>This section presents the concepts of ratio analysis and forecasting along with profitability analysis and turnover ratios and analysis of the liquidity ratios for the Organization. This builds the backgrounds among learners to use analytics for forecasting future financial statements. Various other models to find strategic advantages by looking into financial analysis are also presented.</p> <p>UNIT IV</p> <p>Fraud Prediction Models</p> <p>Fraud Prediction Models are explained so that learners understand what kind of frauds companies are likely to commit. These models represent current the state of the art to detect and predict earnings management.</p> <p>UNIT V</p> <p>Discussion of Real life cases</p> <p>Stock market data analysis, Forecasting stock prices using analytics.</p>
Evaluation	<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
References	<p>Text Books</p> <ul style="list-style-type: none"> • Srangadharan, M., & Rajithakumar, S. (2016). <i>Financial Analysis for Management Decisions</i>. PHI. • Bennet, M.J., & Hugen, D.L. (2018). <i>Financial Analytics with R</i>. Cambridge University Press.

Course Name	Marketing Analytics
Course Code	BBABA-6.4
Course Credit	6
Semester	V
Aims and Objectives	<p>This course on Marketing Analytics provides inputs to learners to measure, manage and analyze marketing performance to maximize its effectiveness and optimize return on investment (ROI). It goes beyond the usual sales and lead generation applications. The detailed applications of marketing analytics are presented to gain insights into customer preferences and trends, which can be further utilized for future marketing and business decisions.</p> <p>Further, this course familiarizes learners with usage of tools to measure brand and customer assets, understand regression analysis, and design experiments as a way to evaluate and optimize marketing campaigns.</p>
Course Intended Learning Outcome	<p>Upon successful completion of the course the Learner will be able to:</p> <ul style="list-style-type: none"> • understand and define a brand architecture and how to measure the impact of marketing efforts on brand value over time • appreciate the idea of measuring customer lifetime value and application of this information to evaluate strategic marketing alternatives • design basic experiments so that one can assess the marketing efforts and invest marketing spend effectively • application of techniques such as regressions analysis and interpretation of outputs. • explore the confounding effects and biases and be able to distinguish between economic and statistical significance
Pre-Requisite	Basic understanding in fundamentals of Marketing Management and Statistics
Course Outline	<p>UNIT I</p> <p>The Marketing Process: In this section, an overview of the marketing process and the transformational role of analytics is explained. Examples are provided from various online community marketplaces with use of analytics to manage demand and supply proposition</p> <p>UNIT II</p> <p>Metrics for Measuring Brand Assets: Companies spend millions on branding for one reason as it allows them to charge more for their products and services. In this section, the concept of brand measurement is discussed. Concepts are presented on as to how to build and define a brand architecture</p>

		<p>and how to measure the impact of marketing efforts on brand value over time.</p> <p>UNIT III</p> <p>Customer Lifetime Value: Another useful concept that is presented in this section is Customer Lifetime Value, or the future net value of a customer relationship. This forward-looking measure of the customer relationship helps one to connect marketing strategies to future financial consequences. This enables proper investment of marketing spends in the right place to maximize return over a customer's lifetime. It further provides insights into measuring CLV and evaluating strategic marketing alternatives.</p> <p>UNIT IV</p> <p>Marketing Experiments: In Marketing context, design of experiments implies that experiments permit one to understand the effectiveness of different marketing strategies and forecast expected Return of Investment. This section explores how to design basic experiments so that one can assess the marketing efforts and invest the marketing spend most effectively. It further bridges the gap between test results and field implementation. Ideas on how web experiments can be implemented cheaply and quickly are presented. Effective ideas on design and conduct marketing experiments are enumerated.</p> <p>UNIT V</p> <p>Real life Cases</p>
		<ul style="list-style-type: none"> ▪ Internal Assessment : 30 % ▪ End Semester Assessment :70 %
		<p>Text Books</p> <ul style="list-style-type: none"> • Kuruganti, S., & Basu, H. (2015). <i>Business analytics: applications to consumer marketing</i>. McGraw Hill Education (India) Private Limited. • Sorger, S. (2013). <i>Marketing analytics: strategic models and metrics</i>. San Bernadino, CA: Admiral Press. • Venkatesan, R., Farris, P., & Wilcox, R.T. (2015). <i>Cutting-edge marketing analytics: Real world cases and data sets for hands on learning</i>. Pearson Education.
