

## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

#### **BBA601 BASICS OF MANAGERIAL ECONOMICS**

|                |          |                                |                               | TEACI            | HING                    | & EVALUA                      | TION                    | SCH | EM | E |         |
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| COVERS         |          |                                | TH                            | IEORY            |                         | PRACTIC                       | CAL                     |     |    |   |         |
| COURSE<br>CODE | CATEGORY | COURSE NAME                    | END SEM<br>University<br>Exam | Two Term<br>Exam | Teachers<br>Assessment* | END SEM<br>University<br>Exam | Teachers<br>Assessment* | L   | Т  | P | CREDITS |
| BBA601         | MAJ      | Basics of Managerial Economics | 60                            | 20               | 20                      | -                             | -                       | 3   | -  | ı | 3       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; MAJ - Major \*Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### **COURSE OBJECTIVE**

To enable students to have a clear understanding of the basics of Managerial Economics. This course is designed specifically for enabling individuals to become better decision-makers in market economies by providing a simple introduction to Managerial Economics.

#### **EXAMINATION SCHEME**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of 5 questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

### **COURSE OUTCOMES**

- CO1: Familiarizing with the concept of Micro and Macro Economics.
- CO2: Acquaintance with the concept of Demand and Supply and its impact on Market.
- CO3: Developing knowledge of business characteristics and market imperfections.
- CO4: Familiarize with the concepts of National income, GDP, GNP etc.

## **COURSE CONTENTS**

### **UNIT I: Introduction to Managerial Economics**

- 1. Introduction of Economics, Micro Economics and Macro Economics
- 2. Relationship between Micro and Macro Economics, Managerial Economics
- 3. Economy and its working
- 4. Production possibility frontier



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| BBA601         | MAJ      | Basics of Managerial<br>Economics | 60                            | 20               | 20                      | -                             | -                       | 3   | -   | ı | 3       |

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## **UNIT II: Demand & Supply analysis**

- 1. Concept of Demand and Supply, Factor affecting demand and supply
- 2. Demand and Supply Function, demand and supply Curves
- 3. Demand of a commodity and price, market equilibrium, shift in demand curve, Income and demand, Income and substitution effect
- 4. Elasticity of Demand, Demand forecast

### **UNIT III: Theory of Production and Analysis of Cost**

- 1. The Production Function, Law of Diminishing Returns, The Law of Variable Proportions
- 2. Relation between Total Product, Average Product and Marginal product, The Three Stages of Production, Short-run and the Long-run. Returns to Scale
- 3. Costs of Different types, Behavior of average and marginal costs
- 4. Cost Curve, Relationship between Production and Cost
- 5. Economies of Scale- Real Economies of Scale, Pecuniary Economies of Scale, Opportunity costs and Markets.

## **UNIT IV: Market Structure Analysis and Theory of Firm**

- 1. Markets of Different types
- 2. Modern Theories of Profit
- 3. Perfect Competition, Monopoly, Oligopoly, and Imperfect Competition
- 4. Monopolistic market, Multi product firms
- 5. Why do markets fail

#### **UNIT V: Macroeconomics for Management**

- 1. Macroeconomic Policies: Meaning
- 2. Objective and Formulation
- 3. National Income, GDP, GNP
- 4. Consumption, Saving and Investment
- 5. Inflation, Monetary Policy and Fiscal Policy



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| BBA601         | MAJ      | Basics of Managerial<br>Economics | 60                            | 20               | 20                      | -                             | -                       | 3   | -   | - | 3       |

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- 1. D.N. Dwivedi, Managerial Economics, Vikas Publication, Latest Edition
- 2. Yogesh Maheswari, Managerial Economics, Phi Learning, Newdelhi, 2005 Gupta G.S.,
- 3. Managerial Economics, Tata Mcgraw-Hill, New Delhi Moyer & Harris,
- 4. Managerial Economics, Cengage Learning, Newdelhi, 2005 Geetika, Ghosh & Choudhury
- 5. Baumol W, Economic Theory and Operations Analysis, Latest Edition



## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

#### BBA602 FUNDAMENTALS OF STATISTICS

|                |          |                            |                               | TEACI            | HING                    | & EVALUA                      | TION                    | SCH | EM | E |         |
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| BBA602         | AECC     | Fundamentals of Statistics | 60                            | 20               | 20                      | -                             | -                       | 4   | -  | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; AECC - Ability Enhancement Compulsory Courses

### **COURSE OBJECTIVES**

- 1. To acquaint the students with basic mathematical tools used in management.
- 2. To Guide students about the importance and utility of Statistics in Business.

## **EXAMINATION SCHEME**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections, A and B. Section A will carry 36 Marks and consist of 5 questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases /problems worth 24 marks.

## **COURSE OUTCOMES**

CO1: Demonstrate understanding of basic statistical concepts

CO2: Structure business problems in a mathematical form

CO3: Apply the statistical concepts learn to other business concepts and

CO4: Validate mathematical/statistical statements relating to economics, business and

finance

## **COURSE CONTENT**

### **UNIT I: Basic Ideas in Statistics**

- 1. Definition, Function and Scope of Statistics
- 2. Collection and Presentation of Data.
- 3. Classification, Frequency Distribution

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| BBA602         | AECC     | Fundamentals of<br>Statistics | 60                            | 20               | 20                      | -                             | 1                       | 4   | -  | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; AECC - Ability Enhancement Compulsory Courses

## **UNIT II: Measures of Central Tendency and Variation**

- 1. Mean, Median, Mode
- 2. Range, Co-efficient of Variation
- 3. Standard Deviation

### **UNIT III: Correlation and Regression Analysis**

- 1. Methods of Studying Correlation for Grouped and Ungrouped Frequency Distribution.
- 2. Equation of Regression Lines

#### **UNIT IV: Time Series Analysis**

- 1. Time Series and its Components
- 2. Linear and Non-linear Trend
- 3. Seasonal Variations and Irregular Variations and their Measurements.

### **UNIT V: Probability**

- 1. Definition of Probability, Conditional Probability
- 2. Dependent and Independent Events
- 3. Addition and Multiplication Rule of Probability

- 1. Anderson, Sweeney, William, Camm(2014). *Statistics for Business and Economics*. Cengage Learning. Latest Edition.
- 2. Gupta S. P. (2014). Statistical Methods. Sultan Chand and Sons. Latest Edition.
- 3. Das, N.G. (2008). Statistical Methods. M. Das and Co.Kolkata. Latest edition.
- 4. Aczel and Sounderpandian (2008). *Complete Business Statistics*. Tata-McGraw Hill. Latest Edition.
- 5. Levin and Rubin (2008). *Statistics for Management*. Dorling Kindersley Pvt Ltd. Latest Edition.

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## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

#### BBAFIN603 BASICS OF FINANCIAL MODELLING USING EXCEL

|                |          |  |                               | ACHI             | EVALU.                  | ATION                         | EM                      | E |   |   |         |
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| BBAFIN603      | MAJ      | Basics of Financial<br>Modelling Using Excel | 60                            | 20               | 20                      |                               | -                       | 3 | 1 | - | 3       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; MAJ - Major \*Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### **COURSE OBJECTIVE**

The objective of the course is to apply the business and strategic acumen in analyzing fundamentals of a company enabling students to make acute forecasts of the financials. The company will also be analyzed with various valuation models and uncertainty analysis.

#### **EXAMINATION SCHEME**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases/problems worth 24 marks.

## **COURSE OUTCOMES**

- CO1 To gain an understanding and appreciation of the principles and applications relevant to the planning, design, and application of MS-Excel in various business domain.
- CO2 To understand basic MS-Excel tools to gather & represent the information from the data.
- CO3 To apply the analytical skills of uncertainty to analysis the business decision problems.
- C04 To increase the knowledge and broaden the perspective of the world through spreadsheet modelling.

## **COURSECONTENT**

### **UNIT I Introduction**

- 1. Excel user interface, application
- 2. Workbook, worksheets & its components,
- 3. Named ranges, formatting of worksheets,
- 4. Dealing with various tabs
- 5. Insert chart



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| BBAFIN603      | MAJ      | Basics of Financial<br>Modelling Using Excel | 60                            | 20               | 20                      | -                             | ı                       | 3   | ı  | 1 | 3       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; MAJ - Major \*Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

## **UNIT II Data Handling**

- 1. Data Sorting & filtering
- 2. Data Validation
- 3. Data Grouping, Grouping Rows & Grouping Columns
- 4. Data Duplicates Conditional Formatting
- 5. Data Consolidation

#### **UNIT III Formula & Functions**

- 1. Formulas, Formula Auditing,
- 2. TEXT Functions, IF-ERROR Functions, LOGICAL Functions,
- 3. VLOOKUP, HLOOKUP, Index Match COUNTIF, SUMIF, SUMPRODUCT
- 4. Statistical Functions AVERAGE, AVERAGEA, STDEV.S, STDEVP, VARS, VARP CORREL& Others (MIN, MINA, MAX, MAXA)

#### **UNIT IV Financial Functions:**

- 1. FV, IRR, NPER, NPV, RRI, SLN
- 2. Loan Amortization Schedule
- 3. Ratio Calculation in Financial Statements
- 4. Pivot table & Slicer

## **UNIT V Financial Uncertainty Analysis**

- 1. Scenario Analysis
- 2. Sensitivity Analysis
- 3. Goal Seek

- 1. Michael Samonas; Financial Forecasting, Analysis and Modelling; Wiley publications; 2015 edition (Latest Edition) •
- 2. S Benninga and Tal Mofkadi; Financial Modeling; The MIT Press; 2022- fifth edition (Latest Edition)
- 3. Michael Rees. Principles of Financial Modelling; Wiley publications; 2018 edition (Latest Edition).



## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

#### **BBAFIN604 FINTECH IN WEALTH MANAGEMENT**

|                |          |                                 |                               | TEAC             | HING                    | & EVALUA                      | TION                    | SCH | EM | Œ |         |
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| COURSE<br>CODE | CATEGORY | COURSE NAME                     | END SEM<br>University<br>Exam | Two Term<br>Exam | Teachers<br>Assessment* | END SEM<br>University<br>Exam | Teachers<br>Assessment* | L   | Т  | P | CREDITS |
| BBAFIN604      | DSE      | Fintech in Wealth<br>Management | 60                            | 20               | 20                      | -                             | -                       | 4   | -  | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

#### **COURSE OBJECTIVE**

To provide students with understanding of how new technologies are disrupting the financial services industry, driving material change in business models, products, applications and customer user interface.

#### **EXAMINATION SCHEME**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

## **COURSE OUTCOMES**

- 1. Demonstrate the understanding of Wealth Management by Fintech in the finance industry.
- 2. Understanding of the concepts, terminologies, and emerging issues in Wealth Management to solve complex data science problems within a business-oriented context.
- 3. Students will learn the different preparatory phases for the construction of Wealth management in Fintech and the main characteristics of the investment both from a theoretical point of view and through applications.

## **COURSE CONTENTS**

#### **UNIT I: Wealthtech Overview and Market Size**

- 1. Introduction of Wealthtech
- 2. All about the market size
- 3. Advantages and Disadvantages of using Wealthtech
- 4. Factors that drive and restrain the market.
- 5. Wealthtech Solutions Definition and Scope

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| BBAFIN604      | DSE      | Fintech in Wealth<br>Management | 60                            | 20               | 20                      | -                             | -                       | 4   | -  | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

## **UNIT II: Wealthtech Tools and Technologies**

- 1. Tools and Technology used
- 2. TOBO advisory in Wealthtech
- 3. Various Wealthtech Technologies
- 4. Difference between Wealthtech and Fintech
- 5. Role of Wealthtech Techenologies

## **UNIT III: Wealthtech Growth Drivers and Strategies**

- 1. Wealthtech growth Drivers
- 2. Strategies for Traditional Companies
- 3. Factors effecting the growth of Wealthtech
- 4. Technological and market trends shaping the Market
- 5. Wealthtech Next Gen

### **UNIT IV: Wealthtech Ecosystems**

- 1. What is Wealthtech Ecosystem
- 2. Services in Wealthtech Ecosystem
- 3. Different types of Wealthtech Ecosystems
- 4. Choosing the right Ecosystem

### **UNIT V: Challenges in Adoption of Wealthtech**

- 1. Challenges in Adoption
- 2. Challenges in Healthcare system
- 3. Wealthtech Startups

- 1. Christi Sussane., Angelique .S (2018). The Wealthtech Book, Wiley
- 2. Rafay, Abdul(2018). Fintech as a Disruptive Technology for Financial Institution, IGI Global
- 3. Sironi, P. (2016). Fintech Innovation, Wiley.
- 4. Antonopolus, AM(2016)., The Internet of Money, Merkle Bloom LLC

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## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

#### BBAFIN605 IT INFRASTRUCTURE MANAGEMENT

|                |          |                                 |                               | TEAC             | HING                    | & EVALUA                      | TION                    | SCH | EM | Œ |         |
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| BBAFIN605      | DSE      | IT Infrastructure<br>Management | 60                            | 20               | 20                      | -                             | -                       | 4   | -  | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

### **COURSE OBJECTIVES**

- 1. To understand basics of IT infrastructure and management and technical & management issues in current infrastructure.
- 2. To pick up information technology, business administration, and electronic commerce
- 3. management.
- 4. To get acquainted knowledge about storage management and recovery.
- 5. To demonstrate knowledge of data center technology and virtualization.
- 6. To provide understanding of information security, ethical hacking, and computer forensics.

### **EXAMINATION SCHEME**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

## **COURSE OUTCOMES**

- 1. Acquire a wealth of information about IT infrastructures.
- 2. Understand IT and management techniques and how to build more reliable, faster applications that are better manageable.
- 3. Understand concepts and methods of storage management.
- 4. Get more insight into the data center technology.
- 5. Get more understanding with security concepts and its management in IT.

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| BBAFIN605      | DSE      | IT Infrastructure<br>Management | 60                            | 20               | 20                      | -                             | -                       | 4   | ı  | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

## **COURSE CONTENTS**

#### UNIT I

- 1. IT infrastructure: introduction, infrastructure management activities
- 2. Evolutions of systems and their management, growth of internet
- 3. Information system design, IT service management process
- 4. Current business demands and IT system issue
- 5. IT infrastructure management, attributes and benefits of IT service management

#### **UNIT II**

- 1. Information Technology Infrastructure Library (ITIL)
- 2. Introduction to the design process for information systems
- 3. IT service continuity management, capacity management
- 4. Availability management, approaches for organization Management
- 5. Models in IT system design, IT management systems

### **UNIT III**

- 1. Introduction to storage, storage archive and retrieve
- 2. Types of storage management, benefits of storage management, space management
- 3. Hierarchical storage management, network attached storage
- 4. Storage area network, disaster recovery, space management Database and application protection, Bare Machine Recovery (BMR)
- 5. Data retention, backup and recovery

### **UNIT IV**

- 1. Data center infrastructure design and architecture
- 2. Elements and functions of data center, data center design models
- 3. Network management, data center security
- 4. Packet filtering, access layer, security for multi-tier server farms
- 5. Virtual data center, virtual data center management, remote management

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| BBAFIN605      | DSE      | IT Infrastructure<br>Management | 60                            | 20               | 20                      | 1                             | -                       | 4   | ı  | ı | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

#### **UNIT V**

- 1. Security management, computer security
- 2. Internet security, physical security, identity management
- 3. Access control, intrusion detection, IT ethics, intellectual property
- 4. Privacy and law, computer forensics, ethics and internet, cyber crimes

- 1. Gupta, P., Prakash, S., & Jayaraman, U. (2010). IT Infrastructure and Its Management, Tata McGraw Hill Education
- 2. Laan, S. (2013). IT Infrastructure Architecture Infrastructure Building Blocks and Concepts, Lulu Press Inc., 2 nd Edition.
- 3. Choubey, M. & Singhal, S. (2012). IT Infrastructure and Management, Pearson Education, 1 st Edition.
- 4. Trivedi, M., Jani, A. & Lakhtaria, K. & Kalyani, A. (2014). Information Technology Infrastructure & Its Management", Khanna Publishing, 1st Edition.
- 5. Sengar, A. (2012). IT Infrastructure Management , S.K. Kataria and Sons, 4 th Edition

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

#### **BBAFIN606 DL APPLICATION IN FINANCE**

| COURSE<br>CODE | CATEGORY | COURSE NAME               | TEACHING & EVALUATION SCHEME  |                  |                         |                               |                         |   |   |   |         |
|----------------|----------|---------------------------|-------------------------------|------------------|-------------------------|-------------------------------|-------------------------|---|---|---|---------|
|                |          |                           | THEORY                        |                  | PRACTICAL               |                               |                         |   |   |   |         |
|                |          |                           | END SEM<br>University<br>Exam | Two Term<br>Exam | Teachers<br>Assessment* | END SEM<br>University<br>Exam | Teachers<br>Assessment* | L | Т | P | CREDITS |
| BBAFIN606      | DSE      | DL Application in Finance | 60                            | 20               | 20                      | -                             | 1                       | 4 | 1 | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

## **COURSE OBJECTIVE**

Upon completion of this course, Students will be able to:

- Have learned about the inner workings of Deep Learning techniques.
- Handle and pre-process data in Python using popular libraries such as Pandas, NumPy, Scikit-Learn.

### **EXAMINATION SCHEME**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

## **COURSE OUTCOMES**

- CO1 Create and understand deep learning models.
- CO2 Explore the details behind reinforcement learning and see how it's used in trading.
- CO3 Understand how to interpret performance evaluation metrics.
- CO4 Examine technical analysis and learn how it works in financial markets.

## **COURSECONTENT**

## **UNIT I- Introducing Data Science and Trading**

- 1. Understanding Data
- 2. Understanding Data Science
- 3. Introduction to Financial Markets and Trading
- 4. Applications of Data Science in Finance

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

|                |          | COURSE NAME               | TEACHING & EVALUATION SCHEME  |                  |                         |                               |                         |   |   |   |         |
|----------------|----------|---------------------------|-------------------------------|------------------|-------------------------|-------------------------------|-------------------------|---|---|---|---------|
|                |          |                           | THEORY                        |                  | PRACTICAL               |                               |                         |   |   |   |         |
| COURSE<br>CODE | CATEGORY |                           | END SEM<br>University<br>Exam | Two Term<br>Exam | Teachers<br>Assessment* | END SEM<br>University<br>Exam | Teachers<br>Assessment* | L | Т | P | CREDITS |
| BBAFIN606      | DSE      | DL Application in Finance | 60                            | 20               | 20                      | -                             | -                       | 4 | ı | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

## **UNIT-II Essential Probabilistic Methods for Deep Learning**

- 1. A Primer on Probability
- 2. Introduction to Probabilistic Concepts
- 3. Sampling and Hypothesis Testing
- 4. A Primer on Information Theory

## **UNIT-III Descriptive Statistics and Data Analysis**

- 1. Measures of Central Tendency
- 2. Measures of Variability
- 3. Measures of Shape
- 4. Visualizing Data
- 5. Correlation
- 6. The Concept of Stationarity
- 7. Regression Analysis and Statistical Inference

## UNIT-IV Linear Algebra and Calculus for Deep Learning

- 1. Vectors and Matrices
- 2. Introduction to Linear Equations
- 3. Systems of Equations
- 4. Limits and Continuity
- 5. Integrals and the Fundamental Theorem of Calculus
- 6. Optimization

### **UNIT-V Introducing Technical Analysis**

- 1. Charting Analysis
- 2. Indicator Analysis
- 3. Moving Averages
- 4. Pattern Recognition
- 5. The Relative Strength Index
- 6. Common Pitfalls of Technical Analysis

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



## Choice Based Credit System (CBCS) in Light of NEP-2020 BBA (Fintech) - VI SEMESTER (2022-2026)

|                | CATECORY | COURSE NAME               | TEACHING & EVALUATION SCHEME  |                  |                         |                               |                         |   |   |   |         |
|----------------|----------|---------------------------|-------------------------------|------------------|-------------------------|-------------------------------|-------------------------|---|---|---|---------|
|                |          |                           | THEORY                        |                  | PRACTICAL               |                               |                         |   |   |   |         |
| COURSE<br>CODE |          |                           | END SEM<br>University<br>Exam | Two Term<br>Exam | Teachers<br>Assessment* | END SEM<br>University<br>Exam | Teachers<br>Assessment* | L | Т | P | CREDITS |
| BBAFIN606      | DSE      | DL Application in Finance | 60                            | 20               | 20                      | -                             | -                       | 4 | 1 | - | 4       |

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical: C - Credit; **DSE**- Discipline Specific Elective

- 1. Grokking Deep Reinforcement Learning, by Miguel Morales
- 2. Deep Learning for Vision Systems, by Mohamed Elgendy
- 3. Deep Learning in Computer Vision: Principles and Applications, edited by Mahmoud Hassaballah and Ali Ismail Awad
- 4. Deep Learning, by Ian Goodfellow, Yoshua Bengio, and Aaron Courville
- 5. Artificial Intelligence by Example (2nd Edition), by Denis Rothman
- 6. Neural Networks and Deep Learning, by Michael Nielsen

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.