**CBN COLLABORATIVE POSTGRADUATE PROGRAMME**

**UNIVERSITY OF IBADAN BUSINESS SCHOOL**

**WORK PLAN**

**NAME OF LECTURER:**

**COURSE: MBC 724 ANALYTICS FOR BANKING**

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| **STUDY WEEK**   | **TOPIC** **SUB-TOPIC**  | **RESULTS** **LEARNING**  | TIMEHrs  | **METHODS**  | **Suggested Videos** |
| **1**   |  **1.0 INTRODUCTION TO FINANCIAL ACCOUNTING*** 1. Introduction

 1.2 Historical Evolution of Financial Accounting1.3 Concept of Financial Statements 1.4 Statement of Cash Flow 1.4.1 Revenue Recognition 1.5 Cash and Receivables1.5.1 Liabilities 1.6 Working Capital | The student can: * Briefly explain the concept of financial accounting and users of accounting information
* Briefly explain the evolution of financial accounting. What the fundamental accounting principles and conventions?
* What are financial statements and their uses?
* What is cash-flow statement?
* What are receivables?
* What are liabilities as well as their impact on profitability?
* What is working capital?
 | 3  | * The students will learn through a combination of face – to - face contact and guided study.
* Personal contact sessions will include: Presentations, Case Study analysis and Quizzes.
* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any),**
 |  There are many good videos available on the Internet.   <https://www.youtube.com/watch?v=f8iyW-J_-b8>  |
| **2** |  **2.0 PREDICTIVE MODELING**2.1 Introduction and Meaning 2.2 Data Modification2.3 Model Training and Testing2.4 Simplifying and Comparing Complex Models2.5 Generation, Prediction, and Communication of Results2.6 Decision Tree, Regression, Neutral Network, Model Boosting  | * Explain the need for using a model.
* Explain the importance of having a predictive model
* What is data modification?.
* Explain model training and testing procedures
* Explain what makes a model complex.
* Explain how a complex model could be simplified.
* Explain the systematic approach to results communication
* Define and explain the use of decision tree, regression, model boosting in the banking industry
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 |  Processes lead-in - (<https://www.youtube.com/watch?v=yerGb79w-K0> |
| **3** | **3.0 INTRODUCTION TO DATA VISUALIZATION**3.1 Meaning of Data Visualization 3.2 Identification and Preparation of Data for Visualization 3.3 Ethics of Visual Analytics 3.4 Effective Communication of Data Insights for Managerial Decision   | * Explain what data visualization is
* Explain the objectives data visualization.
* Explain data transformation processes
* Explain the ethics/principles of visual analytics
* Explain some common data insights that could assist in making effective decision
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| **4**    |  **4.0 PRINCIPLES OF INVESTMENTS** 4.1 Introduction and Meaning 4.2 Different types of securities4.2.1 Stock4.2.2 Bond4.2.3 Forex 4.3 How Securities Markets Operate 4.4 Arbitrage, Market Efficiency, Assets Pricing, Portfolio Theories4.5 Risk and Security Pricing4.6 Pricing of Fixed Income Securities, Equities, Foreign Exchange and Derivatives 4.7 How Banks and Other Financial Institutions Make Money by Bringing Issuers and Investors Together | * Discuss the factors to be considered while making investment plan/decision.
* Discuss the different types of financial securities.
* Discuss the guidelines for effective operations of security markets
* Explain market efficiency theories.
* Explain arbitrage, asset pricing, and portfolio theories.
* Explain the difference between fixed income securities, equities, foreign exchange and derivatives
* Explain how financial institutions make money
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  |  <https://www.youtube.com/watch?v=E7AoZE3EFPE> |
| **5** |  **5.0 Introduction to Financial Derivatives**5.1 Introduction and Meaning 5.2 The Applications of Futures, Forwards, Options and Swaps to Investment Strategy and Risk Management5.3 Contracts, Hedging, Arbitrage, Pricing and Risk Management of Financial Derivative Instruments5.4 Application of Futures Strategies such as Cover Calls, Spreads and Butterflies for Risk Management  | * Discuss the scope of financial derivatives.
* Discuss application of futures, forwards, options, and swaps in investment strategy and risk management.
* Explain the concepts of contracts, hedging, arbitrage, risk management, pricing of financial derivative instruments.
* Discuss the application of futures strategies such as cover calls, spreads and butterflies
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* Guided study will include text readings and the use of a wide range internet based resources.
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 | <https://www.youtube.com/watch?v=nf9ByTdX0aY&t=40s> |
| **6**  | **6.0 Data Analysis for Optimal Decision Making**  6.1 Introduction and Meaning 6.2 Sampling 6.3 Objectives of Statistical Analysis 6.4 Reporting, and Data Presentation Techniques   | * Explain the meaning of optimal decision making
* How data analysis could assist managers in making optimal decision?
* What is sampling and how important it is in data analysis?
* Discuss the scientific methods of data presentation and reporting techniques
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* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any).**
 | <https://www.youtube.com/watch?v=Jr6QG-64Xnw&list=PLFW6lRTa1g82o3I_J6ZgwD-1gpanZenQx> |
| **7** | **7.1 The Effective Leader**7.2 Integrated Behavioral Competencies7.3 Self-Awareness 7.4. Communication7.4 Collaboration,7.5 Relationship Building7.6 Hypothetical Leadership Position  | * Discuss the concept of leadership
* Briefly explain different types of leadership styles schedule.
* Explain the concept of effective leader.
* Discuss some organizational acceptable behavioural competencies
* What is self-awareness?
* Explain the role of communication, collaboration and relationship building that are expected of an effective leader
* Create a hypothetical leadership position
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* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any).**
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|  | **MID-SEMESTER BREAK** |  |
| **8**  |  **8.0 Introduction to R Programming** 8.1 Introduction 8.2 Writing some Programs using R for: 8.2.1 Data Processing8.2.2 Data Deployment8.3.Language Components 8.4 Control of Flow Constructs 8.4.1 Strings8.4.2 Input/Output 8.4.3 Classess 8.4.4 Modules 8.4.5 Matrix Expressions 8.4.6 Regular Expressions 8.5 Hands-on Training  | * Explain R Programming and its application in the banking industry
* Explain how to prepare environment for writing R program for data processing and data deployment
* Explain the language components of R programming
* Describe the control of flow constructs
* Explain strings, input/output, classes, modules with relevant examples
* Explain matrix and regular expressions
* Hands-on
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  | A. Slide Power Point Two. Note  |
| **9** | **9.0 Managerial Finance**9.1 Introduction 9.2 Firm Value 9.3 Risk-Return Analysis 9.4 Time Value of Money   | * Discuss the meaning of managerial finance
* Discuss the concept of firm value and how it could be enhanced.
* Discuss relationships between risk and expected returns
* Discuss time value of money.
 |  | * The students will learn through a combination of face – to - face contact and guided study.
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* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any).**
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| **10** | **10.0 Assets Valuation**10.1 Meaning10.2 Valuation of Financial Instruments10.3 Different types of Financial Assets10.4 Capital Budgeting  | * What is asset valuation?
* Explain how financial instruments are valued
* Discuss the different types of financial assets
* Discuss capital budgeting and its relevance in the banking industry.
 |  | * The students will learn through a combination of face – to - face contact and guided study.
* Personal contact sessions will include: Presentations, Case Study analysis and Quizzes.
* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any),**
 | <https://www.youtube.com/watch?v=riej8WPpYuU> |
| **11** |  **11.0 Working Capital Management** 11.1 Introduction and Meaning 11.2 Objectives of Working Capital Management 11.3 Cost of Capital 11.4 Capital Structure   | * What is working capital?
* What are the objectives of working capital?
* Why working capital management is important?
* What is cost of capital?
* Discuss capital structure
 | 3  | * The students will learn through a combination of face – to - face contact and guided study.
* Personal contact sessions will include: Presentations, Case Study analysis and Quizzes.
* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrialviit (if any).**
 |  <https://www.youtube.com/watch?v=bHK77lbdyWA> |
| **12** |  **12.0 DIVIDEND POLICY**12.1 Introduction and Meaning12.2 Relevance Theories12.3 Irrelevance Theories 12.4 Impact of Dividend Payout on Firms  | * What is dividend?
* Discuss the meaning of dividend policy
* Discuss the popular theories of the relevance of dividend theories
* Explain the irrelevance theories of dividend policy
 |  3 | * The students will learn through a combination of face – to - face contact and guided study.
* Personal contact sessions will include: Presentations, Case Study analysis and Quizzes.
* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any),**
 | <https://www.youtube.com/watch?v=EJTC14D2Xl0&t=26s> |
| **13** | **13.0 Business and Society(1)**13.1 Introduction 13.2 Types of Business Internal Environment13.3 Impact of Internal Environment on Business 13.4 Differences between for-profit and non-profit Organizations   | * Discuss the first family/society of a business
* What are the types of business internal environments?
* Discuss how internal environment of business could impact on it operations
* Differentiate between for profit and non -profit organizations and how their internal environment differs
 |  3 | * The students will learn through a combination of face – to - face contact and guided study.
* Personal contact sessions will include: Presentations, Case Study analysis and Quizzes.
* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any),**
 |   |
| **14** | **14.0 BUSINESS AND SOCIETY(2)**14.1 Introduction and Meaning14.2 External Environments of Business14.3 Corporate Social Responsibilities14.4 Corporate Sustainability14.5 Impact of CSR on Firms  | * Discuss the second family/society of a business
* Explain external environments of a business
* Discuss corporate social responsibilities
* Discuss corporate sustainability
* Discuss the impact of CRS on firms
 | 3 | * The students will learn through a combination of face – to - face contact and guided study.
* Personal contact sessions will include: Presentations, Case Study analysis and Quizzes.
* Guided study will include text readings and the use of a wide range internet based resources.
* Lectures, t**utorials and field trip/industrial visit (if any).**
 | Web links, Internet  |  |
|   | **REVISION WEEK** |  |
| **WEEK STUDY (WEEK 1 TO 14)**  |  |
| **FINAL EXAMINATION**  |

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**Lecturer:**   **PROGRAMME LEADER**