**cbn collaborative postgraduate programme**

**university of ibadan SCHOOL OF BUSINESS**

**ANALYTICS FOR BANKING**

**MODULE SPECIFICATION**

**Last Updated 14/12/2019**

1. **Module Title:** Analytics for Banking
2. **Module Code: MBC 724**
3. **Number of credits: 3**
4. **Level:** MBA
5. **Semester: 2**
6. **Pre-requisites for admission to the module (if any)**Basic knowledge of financial, social science, or engineering discipline will be needed for faster and better understanding.
7. **Module Coordinator**
8. **Aims**

Upon completion of the course, students are expected to:

* 1. Understand the fundamental and processes involved in the analytics for banking
  2. Understand the strategic role of analytics and banking.
  3. Apply the fundamental and methods of analytics widely and practically in conjunction with the other business functions.
  4. Understand the contribution of analytics ideas in the context of globalization businesses.

1. **Summary of Content**

Financial institutions have been recognized as some of the cardinal pillars of economic growth in any economy. Therefore, the importance of understanding the working and analysis of these institutions cannot be overemphasized. The banking firms are the most popular financial institutions within the financial industry. Hence, Analytics for Banking as a course of academic exercise is highly required and becomes essential for every prospective or career officer in this industry. Analytics for Banking combines principles from science, social science, technology, engineering and mathematics with business and finance. This course will equip the students with soft skills necessary to cope with today’s technology-intensive finance industry. Students of this course will master corporate finance as well as learning today’s most relevant tools and techniques used by some of the standard and popular financial institutions to make strategic financial decisions. This course will expose you to the necessary quantitative techniques that will help you to understand the in-depth analysis of the thanking sector. Analytics for Banking could help financial institutions to achieve their goals and making optimal decision as a result of greater understanding of the analytic operations. Hence the study of the subject at postgraduate level has more significance. In this module, students will have exposure to the fundamental and applications of analytics for banking in any financial related sector. The course covers the main areas of (1) introduction to financial accounting, (2) predictive modeling, (3) introduction to data visualization, (4) principles of investment, (5) introduction to financial derivatives, (6) data analysis for optimal decision making, (7) the effective leader, (8) introduction to R programming, (9) managerial finance, (10) business society

1. **Module Intended Learning Outcomes (MILOs)**

**Upon successful completion of this module, students will be able to:**

|  |  |  |
| --- | --- | --- |
| **No.** | **Milos** | **Weighting (%)** |
| **1** | Explain the importance of some basic financial accounting principles in the analysis and management of banking industry |  |
| **2** | Identify and state the importance of modeling towards achieving organizational objectives. |
| **3** | State some basic steps of data visualization and it importance on effective communication to the target audience. |
| **4** | List and explain some fundamental principles necessary for the achievement of profitable investments. |
| **5** | Explain different types of financial derivatives commonly used in the banking and other financial institutions. |
| **6** | Explain how scientific data analysis could help and organization in madding optimal decision. |
| **7** | List some common leadership styles and explain the impact of effective leaders on the performance of banking industry |
| **8** | Outline the advantages of R programming in the banking industry |
| **9** | Explain the philosophy of managerial finance and how the field is considered relevant for financial managers. |  |
| **10** | Explain the roles of banking institutions to the society and how there could be industrial harmony and mutual benefits between the duo. |  |

1. **Teaching and Learning Activities (TLAs)**

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| --- | --- | --- | --- |
| **MILO No.** | **TLAs** | **Functions** | **Hours/Week** |
| 1,2,3,4,5,6,7,8,9,10 | Lectures and materials | Course instructors will introduce, with appropriate audio-visual materials, the critical concepts of Analytics for Banking through lectures. | **3hours** |
| 1,2,3,4,5,6,7,8,9,10 | Tutorials (Case study, Group Discussion, Quizzes, presentations, peer review, role play) | Tutorial sessions will introduce experiential forms of learning activities such as case studies, group discussion, presentations, peer review, quizzes and role play. Emphasis placed on more in-depth learning of the processes, tools, and techniques in Analytics for Banking | **3 hours** |

1. **Assessments Tasks/Activities**

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| --- | --- | --- | --- |
| **MILO No.** | **Type of assessment tasks/activities** | **Weighting**  **(if applicable)** | **Remarks** |
| 1,2,3,4,5,6,7,8 | **Examination**  Students are required to participate in a three-hour examination to test their acquisitions of concepts and knowledge. | 50% |  |
| 1,2,3,4,5,6,7,8 | **Written Test/Quizzes**  1-hour written test/Pop Quizzes | 20% | Week 7/On Going basis |
| 1,2,3,4,5,6,7,8 | **Assignments**  Assessment comprises group work assignment and individual assignment. | 30% | Case study analysis and Report analysis on Analytics for Banking |

1. **Attendance Requirements  
   Students are required to attend all tutorials and lectures and laboratory sessions (if any),**
2. **Contribution to Programme Learning Outcomes**

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| --- | --- | --- |
| **No** | **PILOs** | **MILO No** |
| **1** | Demonstrate understanding of managing technology within organization to support analytics for banking activities | **1,2** |
| **2** | Apply knowledge of technical analytics for banking innovatively in solving banking and other financial institutions’ problems | **2,3,4,5,6,7,8** |
| **3** | Able to manage effective transition of analytics for banking processes into technology-based solutions for financial institutions | **2,3,4,5,6,7,8** |
| **4** | Demonstrate analytics for banking research skills | **3** |
| **5** | Able to recognize and analyze business data for effective decision making using analytics for banking skills. | **2** |
| **6** | Demonstrate independent and life-long learning skills | **1,2,3,4,5** |
| **7** | Able to work collaboratively and assume different roles in a team to solve problems and make decisions to achieve common goals | **1,2,3,4,5** |
| **8** | Able to lead using the acquired knowledge of leadership skills | **1,2,3,4,5** |
| **9** | Demonstrate professional ethics and practices and moral responsibility towards the environment and the society | **1,2,3,4,5** |

1. **Grading of Student Achievement**

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| --- | --- | --- | --- |
| **Letter Grade** | **% Mark** | **Grade Definitions** | **Remarks** |
| A+  A  A- | 90-100  85-89  80-84 | **Excellent** | Demonstrate excellent understanding of the subject matters. |
| B+  B  B- | 75-79  70-74  65-69 | **Good** | Demonstrate a good understanding of the subject matters, though missing some of the points. |
| C+  C  C- | 60-64  55-59  50-54 | **Adequate** | Demonstrate an adequate understanding of the core of the subject matters. |
| D+  D | 45-49  40-44 | **Marginal** | Demonstrate a limited understanding of the subject matter and can only recall limited content. |
| F (Fail) | <40% | **Fail** | Demonstrate a wrong understanding of the subject matter. |

1. **Resources**

**Suggested primary texts**

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| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Name of Author(s)** | **Year of Publication** | **Title of Book** | **Edition** | **Publisher’s Name** | **ISBN** |
| **1** | [**Philip M. Parker**](https://www.amazon.com/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Philip+M.+Parker+Ph.D&text=Philip+M.+Parker+Ph.D&sort=relevancerank&search-alias=books) | **2019** | **The 2021-2026 World Outlook for Banking Big Data and Business Analytics** | **1st Edition** | **ICON Group International, Inc** | **ASIN:** B082PQ4W78 |
| **2** | [**Robert S. Kricheff**](https://www.amazon.com/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Robert+S.+Kricheff&text=Robert+S.+Kricheff&sort=relevancerank&search-alias=books) | **2014** | **Data Analytics for Corporate Debt Markets: Using Data for Investing, Trading, Capital Markets, and Portfolio Management** | **1st Edition** | **Pearson FT Press** | **ISBN-0133553655** |

**Suggested secondary texts**

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| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Name of Author(s)** | **Year of Publication** | **Title of Book** | **Edition** | **Publisher’s Name** | **ISBN** |
| **1** | [Edward E Williams](https://www.amazon.com/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Edward+E+Williams&text=Edward+E+Williams&sort=relevancerank&search-alias=books) , and  [John A Dobelman](https://www.amazon.com/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=John+A+Dobelman&text=John+A+Dobelman&sort=relevancerank&search-alias=books) | **2017** | **Quantitative Financial Analytics: The Path To Investment Profits** | **1stth Edition** | WSPC | 9813224258 |
| **2** | [Donald R. Van Deventer](https://www.amazon.com/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Donald+R.+Van+Deventer&text=Donald+R.+Van+Deventer&sort=relevancerank&search-alias=books), and  [Kenji Imai](https://www.amazon.com/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Kenji+Imai&text=Kenji+Imai&sort=relevancerank&search-alias=books) | **1996** | **Financial Risk Analytics : A Term Structure Model Approach for Banking, Insurance & Investment Management** | **1996 Edition** | **Irwin Professional Pub; Har/Dskt edition** | **0786309644** |
| **3** | [Deepti Gupta](https://www.amazon.com/Deepti-Gupta/e/B07GDPQGJQ/ref=dp_byline_cont_book_1) | **2018** | ***Applied Analytics through Case Studies Using SAS and R: Implementing Predictive Models and Machine Learning Techniques*** | *1st Edition* | Apress | **ISBN: 9781484235249** |
| **4** | [John L. Teall](https://www.amazon.com/John-L-Teall/e/B001IU4RV4?ref=sr_ntt_srch_lnk_16&qid=1576610180&sr=8-16) | **1999** | Financial Market Analytics | 1999 Edition | Praeger | 1567201989 |
| **5** | **Randy Bartlett** | **2013** | ***A PRACTITIONER'S GUIDE TO BUSINESS ANALYTICS: Using Data Analysis Tools to Improve Your Organization’s Decision Making and Strategy*** | **1st Edition** | McGraw-Hill Education | 10: 0071807594 |

**Suggested Journals**

Journal of Banking & Finance

Econometrics and Statistics

Journal of Econometrics

Social Sciences & Humanities Open

**Facilities Requirements**

A lecture room with appropriate teaching and lab (if any) facilities