**SKILLED**

**LEVEL 1**

**Data Analytics for Strategic Decision-Making**

**Course Description**

This course equips students with the knowledge and skills to leverage data analytics for strategic decision-making in organizations, particularly within the Nigerian business environment. Students will learn how to identify strategic opportunities, analyze market trends, evaluate business performance, and develop data-driven strategies using various analytical tools and techniques. The course emphasizes the application of data analytics to solve real-world business problems and improve organizational performance in the Nigerian context.

**Course Content**

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

* Understand the role of data analytics in strategic decision-making.
* Identify strategic opportunities and challenges using data analysis.
* Analyze market trends and competitor behavior using data analytics.
* Evaluate business performance and identify areas for improvement.
* Develop data-driven strategies for various business functions (e.g., marketing, finance, operations).
* Communicate data-driven insights effectively to support strategic decisions.
* Understand the challenges and opportunities of applying data analytics in the Nigerian business context.
* Apply data analytics tools and techniques to real-world strategic decision-making scenarios relevant to Nigeria.

**Learning Outcome**

**Introduction to Data Analytics for Strategic Decision-Making**

* The strategic decision-making process.
* The role of data analytics in strategic planning and implementation.
* Types of data analytics for strategic decision-making (descriptive, diagnostic, predictive, prescriptive).
* Data-driven culture and its importance in organizations.
* The Nigerian business landscape and its impact on strategic decision-making.

**Identifying Strategic Opportunities and Challenges**

* Market analysis and segmentation using data analytics.
* Trend analysis and forecasting.
* Competitive analysis and benchmarking.
* Identifying emerging technologies and their impact on business.
* Using data to identify strategic opportunities and challenges in the Nigerian market.

**Analyzing Market Trends and Competitor Behavior**

* Social media analytics for market research and customer insights.
* Web analytics for understanding customer behavior and online performance.
* Competitor analysis using publicly available data and industry reports.
* Sentiment analysis is needed to understand customer perceptions and brand reputation.
* Applying market and competitor analysis techniques to Nigerian industries.

**Evaluating Business Performance**

* Key performance indicators (KPIs) and metrics for different business functions.
* Financial performance analysis using financial ratios and metrics.
* Operational performance analysis using process metrics and efficiency indicators.
* Customer performance analysis using customer lifetime value and churn rate.
* Performance evaluation in the context of Nigerian business goals.

**Developing Data-Driven Strategies**

* Strategic planning frameworks and their application to data analytics.
* Developing data-driven marketing strategies (e.g., customer targeting, campaign optimization).
* Developing data-driven financial strategies (e.g., risk management, investment analysis).
* Developing data-driven operational strategies (e.g., supply chain optimization, process improvement).
* Strategy development specific to the opportunities and limitations of the Nigerian market.

**Communicating Data-Driven Insights**

* Data visualization and storytelling for strategic communication.
* Creating compelling reports and presentations for executive audiences.
* Communicating data insights effectively to different stakeholders.
* Overcoming communication barriers in the Nigerian business context.

**Data Analytics Tools and Techniques**

* Introduction to data analytics tools and platforms (e.g., Excel, Tableau, Power BI, R, Python).
* Data mining and machine learning techniques for strategic decision-making.
* Statistical modeling and forecasting.
* Data visualization and reporting.
* Choosing the right tools and techniques for specific strategic problems.

**Data Analytics in the Nigerian Context**

* Challenges and opportunities for data analytics in Nigerian organizations (e.g., data availability, infrastructure, skills gap).
* Case studies of successful data analytics applications in Nigerian businesses.
* The role of data analytics in addressing local challenges and promoting development.
* Ethical considerations and data privacy in the Nigerian context.

**Suggested Reading /Textbooks**

**Competing on Analytics: The New Science of Winning** by Thomas H. Davenport and Jeanne G. Harris.

**Data-Driven Decision Making: The 15 Metrics Everyone Should Know** by Mark Jeffery.

**Relevant articles and reports on data analytics and strategic decision-making.**

**Reports on the Nigerian business environment and industry trends.**

**Managing Data-Driven Innovation Tool**

**Course Description**

 This course focuses on the practical application of data-driven innovation tools and methodologies to foster creativity, problem-solving, and strategic growth within organizations, particularly within the Nigerian business environment. Students will learn how to leverage data analytics, design thinking, agile development, and other innovation frameworks to identify opportunities, develop new products and services, and drive organizational transformation. The course emphasizes hands-on experience with relevant tools and platforms and addresses the specific challenges and opportunities of implementing data-driven innovation in Nigeria.

**Learning Outcome**

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

* Understand the principles of data-driven innovation.
* Identify and apply relevant innovation tools and methodologies (e.g., design thinking, agile, lean startup).
* Leverage data analytics to identify innovation opportunities and validate ideas.
* Develop and manage data-driven innovation projects.
* Utilize data visualization and storytelling to communicate innovation insights.
* Foster a culture of innovation within organizations.
* Understand the challenges and opportunities of implementing data-driven innovation in Nigeria.
* Apply data-driven innovation tools to solve real-world problems relevant to the Nigerian context.

**Course Content**

**Introduction to Data-Driven Innovation**

* Defining data-driven innovation and its importance.
* The role of data in the innovation process.
* Key concepts and frameworks for data-driven innovation.
* The innovation ecosystem in Nigeria: Challenges and opportunities.

**Design Thinking and User-Centered Innovation**

* Principles of design thinking: Empathize, define, ideate, prototype, test.
* User research and data collection techniques.
* Developing user personas and journey maps.
* Rapid prototyping and iterative design.
* Applying design thinking to solve problems in the Nigerian context.

**Agile and Lean Startup Methodologies**

* Principles of agile development and lean startup.
* Building minimum viable products (MVPs).
* Iterative development and continuous improvement.
* Customer feedback and validation.
* Applying agile and lean startup to innovation projects in Nigeria.

**Data Analytics for Innovation**

* Identifying innovation opportunities using data analytics.
* Data mining and machine learning for trend analysis and pattern recognition.
* Using data to validate innovation ideas and measure impact.
* Data-driven decision-making in the innovation process.
* Utilizing Nigerian-specific data sources for innovation projects.

**Innovation Tools and Platforms**

* Introduction to innovation management platforms.
* Data visualization and storytelling tools (e.g., Tableau, Power BI).
* Prototyping and collaboration tools (e.g., Figma, Miro).
* Data analytics tools and platforms (e.g., Python, R, cloud-based analytics).
* Exploring and adapting tools to fit Nigerian infrastructure and accessibility.

**Building a Culture of Innovation**

* Fostering creativity and collaboration within organizations.
* Creating an environment for experimentation and risk-taking.
* Managing innovation portfolios and measuring impact.
* Change management for innovation adoption.
* Building innovation capacity within Nigerian organizations.

**Data-Driven Innovation in Specific Sectors (Nigerian Focus)**

* Applying data-driven innovation to address challenges in key sectors (e.g., agriculture, healthcare, education, finance).
* Case studies of successful data-driven innovation projects in Nigeria.
* Developing innovation strategies for specific sectors based on data analysis.
* Addressing sector-specific challenges with data-driven solutions.

**Data Governance and Ethical Considerations for Innovation**

* Data privacy and security in innovation projects.
* Ethical implications of data-driven innovation.
* Legal and regulatory frameworks for data use in Nigeria (NDPR and others).
* Responsible innovation and social impact.

**Suggested Readings**

**The Lean Startup** by Eric Ries.

**Design Thinking: Integrating Innovation, Customer Experience, and Brand Value** by Thomas Lockwood.

**Competing on Analytics: The New Science of Winning** by Thomas H. Davenport and Jeanne G. Harris.

**Relevant articles and reports on data-driven innovation and the Nigerian innovation ecosystem.**

**Intelligence Business Information System**

**Course Description**

This course provides a comprehensive overview of Intelligence Business Information Systems (IBIS) and their application in enhancing organizational decision-making, particularly within the Nigerian business environment. Students will learn about the components of IBIS, including data warehousing, business intelligence tools, data mining, and knowledge management systems. The course emphasizes the practical application of IBIS to solve real-world business problems, improve performance, and gain a competitive advantage. The course will also address the specific challenges and opportunities of implementing IBIS in Nigeria.

**Learning Outcome**

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

* Understand the concepts and principles of Intelligence Business Information Systems.
* Design and implement data warehousing solutions.
* Utilize business intelligence tools for data analysis and reporting.
* Apply data mining techniques to extract valuable insights from data.
* Develop and manage knowledge management systems.
* Understand the role of IBIS in strategic decision-making.
* Evaluate the effectiveness of IBIS implementations.
* Understand the challenges and opportunities of implementing IBIS in Nigeria.
* Apply IBIS concepts and tools to solve real-world problems relevant to the Nigerian context.

**Course Content**

**Introduction to Intelligence Business Information Systems**

* Defining IBIS and its components.
* The evolution of IBIS and its role in modern organizations.
* The benefits of implementing IBIS.
* The IBIS architecture: Data sources, data warehouse, business intelligence tools, knowledge management.
* The Nigerian business environment and the need for effective IBIS.

**Data Warehousing and Data Management**

* Data warehousing concepts: OLTP vs. OLAP, data marts, data lakes.
* Data modeling for data warehousing: Star schema, snowflake schema.
* ETL (Extract, Transform, Load) processes.
* Data quality management and data governance.
* Data storage and retrieval in the Nigerian context (infrastructure limitations).

**Business Intelligence Tools and Techniques**

* Introduction to business intelligence tools (e.g., Tableau, Power BI, QlikView).
* Data visualization and reporting.
* Online Analytical Processing (OLAP) techniques.
* Dashboards and scorecards.
* Using BI tools for decision-making in Nigerian businesses.

**Data Mining and Knowledge Discovery**

* Data mining techniques: Classification, clustering, association rule mining, regression.
* Data mining tools and algorithms.
* Knowledge discovery process.
* Applying data mining to identify trends and patterns in Nigerian markets.

**Knowledge Management Systems**

* Knowledge management concepts and principles.
* Types of knowledge management systems.
* Building and managing knowledge repositories.
* Knowledge sharing and collaboration.
* Utilizing knowledge management to improve decision-making in Nigerian organizations.

**IBIS for Strategic Decision-Making**

* Using IBIS to support strategic planning and implementation.
* Performance measurement and management with IBIS.
* Competitive intelligence and market analysis using IBIS.
* IBIS for risk management and fraud detection.
* IBIS for specific sectors in Nigeria (e.g., finance, agriculture, healthcare).

**Implementation and Evaluation of IBIS**

* Planning and managing IBIS projects.
* Selecting appropriate IBIS tools and technologies.
* Change management for IBIS implementation.
* Evaluating the effectiveness of IBIS implementations.
* Addressing implementation challenges in the Nigerian context.

**Ethical and Legal Considerations in IBIS**

* Data privacy and security in IBIS.
* Ethical implications of data mining and knowledge discovery.
* Legal and regulatory frameworks for data use in Nigeria (NDPR and others).
* Responsible data management and governance in IBIS.

**Suggested Textbooks/Readings:**

* **Business Intelligence: A Managerial Approach** by Efraim Turban, Ramesh Sharda, and Dursun Delen.
* **Data Warehousing Fundamentals: A Comprehensive Guide for IT Professionals** by Paulraj Ponniah.
* **Data Mining: Concepts and Techniques** by Jiawei Han, Micheline Kamber, and Jian Pei.
* **Relevant articles and reports on business intelligence and information systems in Nigeria.**

**Digital Business & E-Commerce Management**

**Course Description**

This course provides a comprehensive understanding of digital business and e-commerce strategies, models, and technologies, with a specific focus on their application and impact within the Nigerian business environment. Students will explore the key concepts of digital transformation, online marketing, e-commerce platforms, payment systems, logistics, and customer relationship management in the context of Nigeria's unique market dynamics. The course emphasizes practical application, equipping students with the skills to develop and manage successful digital businesses and e-commerce ventures in Nigeria.

**Learning Outcome**

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

* Understand the fundamental principles 1 of digital business and e-commerce.
* [1. www.luc.edu](https://www.luc.edu/media/lucedu/chemistry/syllabi/spring2014/CHEM%20101%20001.pdf)
* [www.luc.edu](https://www.luc.edu/media/lucedu/chemistry/syllabi/spring2014/CHEM%20101%20001.pdf)
* Analyze the Nigerian e-commerce landscape and its unique challenges and opportunities.
* Develop and implement effective digital marketing strategies for Nigerian consumers.
* Select and manage appropriate e-commerce platforms and technologies.
* Understand and implement secure online payment systems.
* Develop and manage efficient logistics and supply chain systems for e-commerce in Nigeria.
* Implement effective customer relationship management (CRM) strategies for online businesses.
* Understand the legal, ethical, and regulatory considerations of digital business in Nigeria.
* Develop and manage a comprehensive digital business and e-commerce plan for a Nigerian venture.

**Course Content**

**Introduction to Digital Business and E-Commerce**

* Defining digital business and e-commerce.
* The evolution of e-commerce and its impact on traditional businesses.
* Digital business models: B2B, B2C, C2C, and emerging models.
* The Nigerian e-commerce ecosystem: Market size, growth drivers, and challenges.
* Digital transformation and its importance for Nigerian businesses.

**The Nigerian E-Commerce Landscape**

* Market analysis of the Nigerian e-commerce sector.
* Consumer behavior and online purchasing trends in Nigeria.
* Payment preferences and challenges in Nigeria.
* Logistics and delivery infrastructure in Nigeria.
* Regulatory and policy environment for e-commerce in Nigeria.

**Digital Marketing Strategies for Nigerian Consumers**

* Search engine optimization (SEO) and search engine marketing (SEM).
* Social media marketing for Nigerian audiences.
* Content marketing and influencer marketing.
* Email marketing and mobile marketing.
* Online advertising and affiliate marketing.
* Measuring digital marketing effectiveness and ROI.

**E-Commerce Platforms and Technologies**

* Selecting appropriate e-commerce platforms (e.g., Shopify, WooCommerce, Jumia, Konga).
* Website design and user experience (UX) for Nigerian consumers.
* Mobile commerce and app development.
* Product catalog management and inventory control.
* Data analytics for e-commerce insights.
* Adapting global platforms to the Nigerian context.

**Online Payment Systems in Nigeria**

* Understanding different payment gateways and methods (e.g., Paystack, Flutterwave, Interswitch).
* Mobile money and USSD payments.
* Security and fraud prevention in online transactions.
* Payment integration and user experience.
* Addressing payment challenges specific to Nigeria.

**Logistics and Supply Chain Management for E-Commerce in Nigeria**

* Warehouse management and order fulfillment.
* Last-mile delivery and logistics challenges.
* Inventory management and supply chain optimization.
* Reverse logistics and returns management.
* Leveraging technology for logistics efficiency.
* Addressing logistics challenges in Nigeria's infrastructure.

**Customer Relationship Management (CRM) for Online Businesses**

* Building customer loyalty and retention.
* Personalization and customer segmentation.
* Customer service and support in the digital age.
* Data privacy and customer trust.
* Using CRM tools to enhance customer experience.
* Addressing CRM challenges specific to the Nigerian market.

**Legal, Ethical, and Regulatory Considerations in Nigerian E-Commerce**

* Consumer protection laws and regulations.
* Data privacy and security (NDPR).
* Intellectual property and copyright issues.
* Taxation and regulatory compliance.
* Ethical considerations in online marketing and sales.

**Developing a Digital Business and E-Commerce Plan for Nigeria**

* Market research and opportunity analysis.
* Business model development and validation.
* Digital marketing strategy and implementation plan.
* E-commerce platform selection and development.
* Logistics and payment system integration.
* Financial planning and budgeting.
* Risk assessment and mitigation.
* Pitching and presenting a digital business plan.

**Suggested Textbooks/Readings:**

* **E-commerce 2023: Business. Technology. Society.** by Kenneth C. Laudon and Carol Guercio Traver.
* **Digital Marketing: Strategy, Implementation and Practice** by Dave Chaffey and Fiona Ellis-Chadwick.
* **The Nigerian E-Commerce Report** (various sources).
* **Relevant articles and reports on digital business and e-commerce in Nigeria.**