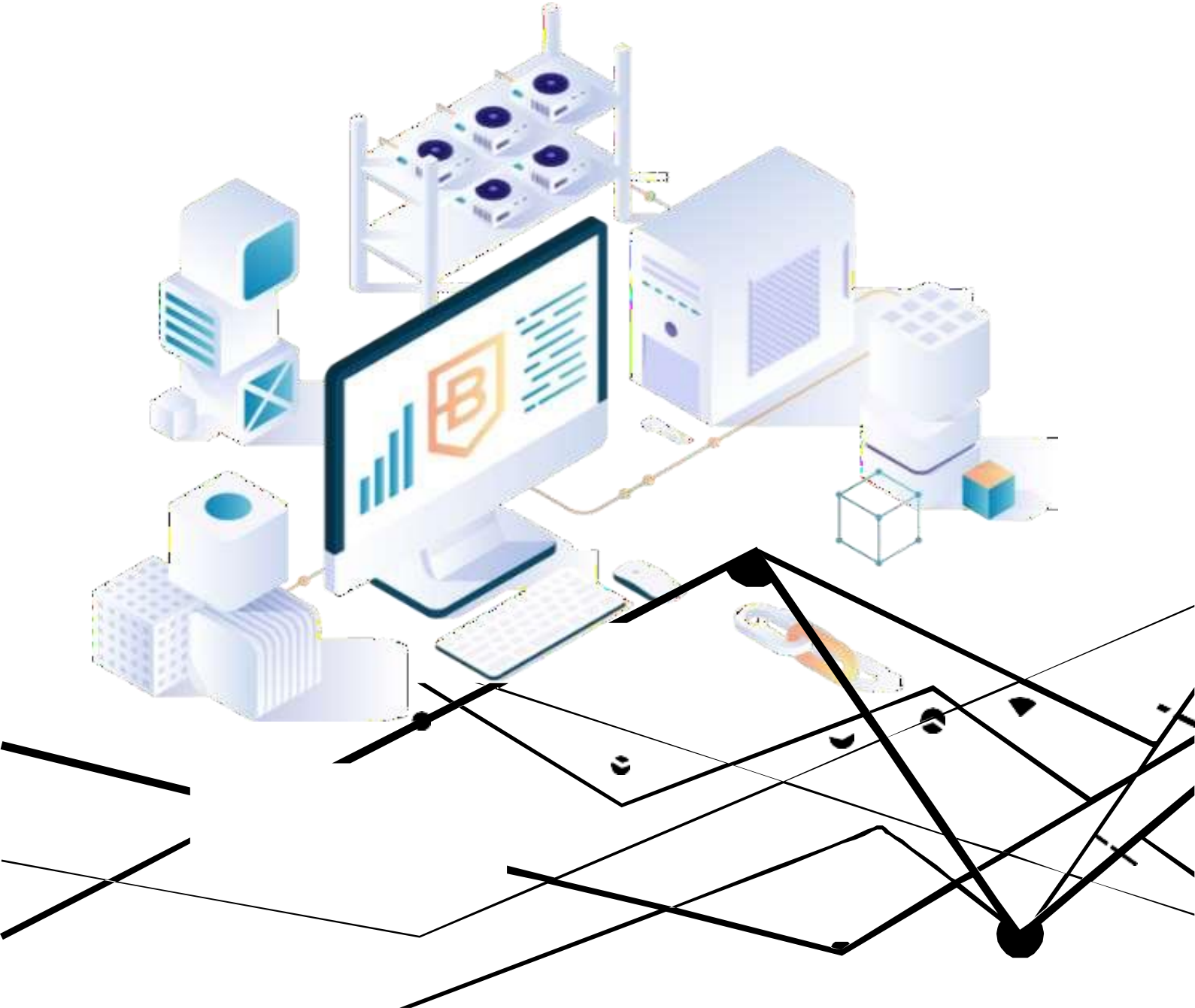
Phenomenal Based LMS

STUDENT HANDBOOK

Dual Award Diploma in Blockchain Technology

i) Professional Diploma in Blockchain Technology (PDipBT) by Maal Data Labs

ii) Diploma in Blockchain Technology (DipBT) by Warnborough College, UK



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Welcome to Your Student Handbook

Proudly developed by **MAAL DATA LAB**, this handbook serves as an essential guide to enrich your educational journey. Designed to empower students from all regions and backgrounds, it reflects our commitment to fostering knowledge while respecting diverse cultural and legal contexts.

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At MAAL DATA LAB, we are dedicated to equipping you with the resources you need to succeed. Let this handbook inspire and guide you on your path to excellence.

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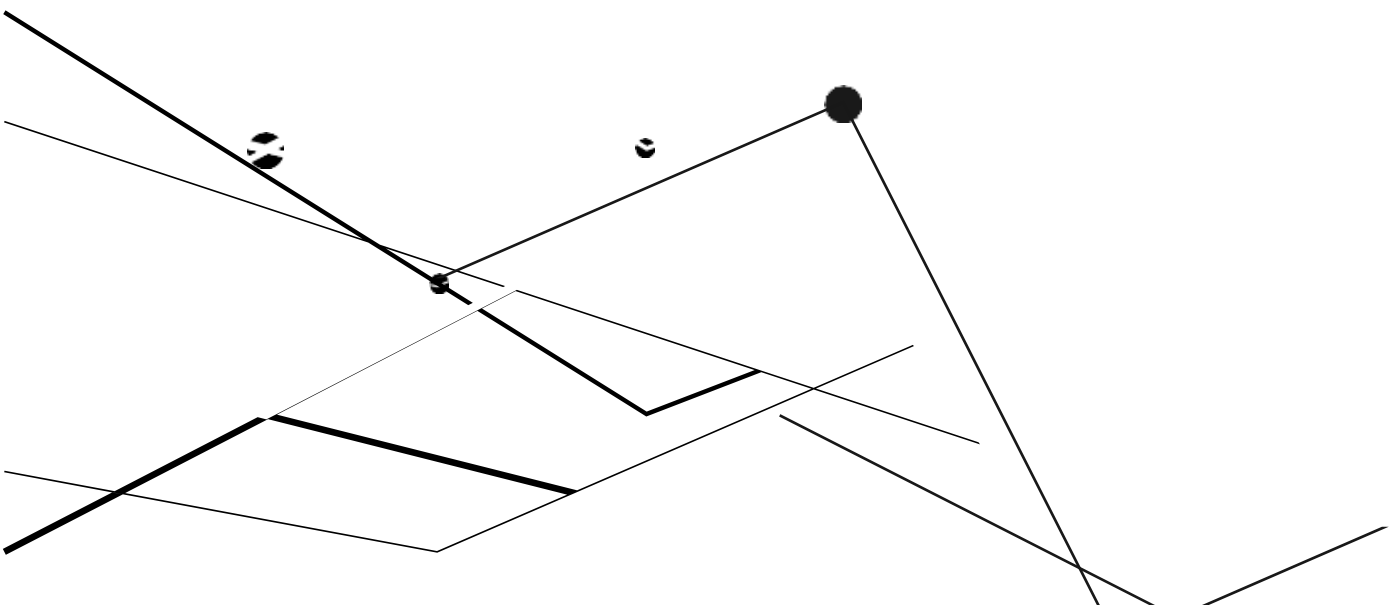

TABLE OF CONTENTS

Dual Award Diploma in Blockchain Technology

Welcome Message	4
Background Information	4
Program Overview	5
Program Structure	5
Why Study Blockchain	6
Program Learning Outcomes	6
Getting Started	7
Module Descriptor	8
Grading System & Graduating Overview	19

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Welcome Message

Welcome to the Blockchain Technology Program at MAAL DATA LAB! We are delighted to have you embark on this exciting journey into the groundbreaking world of Blockchain Technology. This handbook is designed to provide you with essential information to help you navigate the program effectively and make the most of your experience.

The Academic Committee has developed this guidebook as a key resource for both current and prospective students, offering a comprehensive foundation to support your academic and professional success.

Please note that this handbook is intended to complement the required reading materials recommended by the faculty. We encourage you to actively engage with the module content and explore additional resources suggested by your lecturers to gain a deeper understanding of the subject matter.

Background Information

Incorporated in Malaysia on 8 November 2023, **MAAL DATA LAB SDN. BHD.** is a private limited company at the forefront of developing and applying cutting-edge blockchain technology.

We proudly operate the **Phenomena-based Learner Management System (LMS)** at www.maaledu.com, which powers our **Dual Diploma Program in Blockchain Technology**. Tailored for high school graduates, undergraduates, postgraduates, and professionals, our flexible, hands-on courses are designed to equip learners with the skills needed to excel in the dynamic blockchain industry.

Our **phenomena-based learning curriculum** seamlessly integrates Web3 technologies and innovative methodologies to deliver an unparalleled educational experience. Through this program, students earn a prestigious dual-award diploma in Blockchain Technology, developed in partnership with **Warnborough College UK**. This collaboration offers students a fast-track pathway to a successful and rewarding career in the blockchain ecosystem.

At MAAL DATA LAB, we are committed to shaping the next generation of blockchain leaders and innovators.

Program Overview

The Blockchain Program at **MAAL DATA LAB** delivers a comprehensive curriculum crafted to provide you with both in-depth theoretical knowledge and hands-on practical skills. The program spans foundational concepts, advanced topics, and real-world applications of Blockchain Technology, ensuring you are well-prepared to thrive in this cutting-edge field.

Duration: 12 months

Mode of Study: Phenomena-Based LMS

Credit hours: 90

Program Structure

The program comprises of **six (6) Theory Modules**, **four** (**4) Practical Modules,** all of which must be completed alongside a **final assignment**. To successfully fulfill the program requirements, learners must complete a total of **90 credit hours**.

The standard program duration is **12 months**, but learners may request an extension of up to **24 months**, subject to approval. This flexibility ensures that learners can balance their studies with personal and professional commitments.

The details for each module are expanded in the respective module descriptor.

Modules	Credit Hours
Introduction to Blockchain Technology (1 week)	2
Blockchain Architectures (1 week)	2
Consensus Mechanisms (1 week)	2
Cryptography and Security in Blockchain (3 weeks)	6
Blockchain Use Cases (1 week)	2
Social, Economic, and Legal Implications of Blockchain Technology (1 week)	2
Blockchain Development Tools and Programming Languages (6 weeks)	12
Smart Contracts – Practical (8 weeks)	16
Decentralized Applications – Front-End (6 weeks)	12
Decentralized Applications – Back-End (6 weeks)	12
Final Assessment (6 weeks)	22
Total	**90**

Why Study Blockchain Technology?

Blockchain Technology is transforming industries worldwide, offering secure, transparent, and decentralized solutions that are reshaping the future. By studying Blockchain, you'll unlock opportunities to:

- **Master a High-Demand Skillset**
  Become an expert in one of today's most revolutionary technologies, highly sought after across industries.
- **Drive Innovation and Disruption**
  Learn how Blockchain is challenging and reinventing traditional business models, opening doors to new possibilities.
- **Build Versatile, In-Demand Skills**
  Acquire knowledge and expertise applicable to finance, supply chain, healthcare, real estate, and more.
- **Launch a Thriving Career**
  Prepare for dynamic roles as a Blockchain developer, consultant, strategist, or entrepreneur in a rapidly growing global ecosystem.

Step into the future with Blockchain technology and position yourself at the forefront of this groundbreaking revolution!

Program Learning Outcomes

Upon completion of this program, students will be able to:

- Understand the principles and architecture of Blockchain Technology.
- Develop and deploy smart contracts and decentralized applications (dApps).
- Analyze the social, economic, and legal implications of Blockchain.
- Utilize Blockchain development tools and frameworks.
- Implement Blockchain solutions to real-world problems.

Getting Started

Tips for Success

Preparation

- **Read All Sessions:** Before attending the online course, thoroughly read all sessions of the module. Familiarize yourself with the content, learning objectives, and any pre-reading materials provided to maximize your understanding.

- **Take Notes:** While reviewing the material, take detailed notes to capture key points, important concepts, and questions you might want to address during the sessions.

During the Learning Process

- **Active Participation:** Engage actively in the **Phenomena-Based Learning** sessions. Timely completion of these sessions is crucial, as they contribute 60% of your module grading. Focus on the explanations provided, particularly in modules 1 through 6.

- **Ask Questions in Practical Sessions:** For the hands-on modules (7–10), participate fully by asking questions during or after each practical session. Use this opportunity to clarify any doubts or gain a deeper understanding of the material.

Assessment Components

- **Multiple-Choice Quizzes**
    - Each module is divided into sections, and every section includes a quiz with a minimum of **10 multiple-choice questions**.
    - You must complete the quiz for one section before proceeding to the next.
    - These quizzes contribute **20%–40%** of your overall grade. Review the session content thoroughly before attempting them.

- **Assignments**
    - Assignments are a key element of the **practical modules** and will be provided by the tutor upon module completion.
    - These assignments are **mandatory** and account for **40%** of your final grade. Ensure you allocate sufficient time to complete them to a high standard.
    - ***Module Assignment submitted at the end of the modules and delivered by email to: academic@maaledu.com***

Additional Tips

- **Time Management:** Plan your study schedule effectively to stay on top of the coursework.
- **Organization:** Keep track of your notes, assignments, and deadlines.
- **Engagement:** Actively participate during sessions and seek assistance whenever needed.

By following these guidelines, you will not only excel in your Blockchain Technology studies but also gain the skills and knowledge required to thrive in this innovative field.

Module Descriptor

Module 1	Introduction to Blockchain Technology
Module Overview	This module aims to provide students with a comprehensive understanding of Blockchain Technology, covering its key concepts, evolution, and impact across industries. It explains how Web3 improves on Web2, addresses blockchain's advantages over traditional databases, and highlights its role in digital innovation. By the end of the course, learners will gain a solid foundation in blockchain and its core principles.
Module Credit Hours	2
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Timely Module Completion – 60% | Quiz – 40%
Module Learning Outcomes	***1.What is blockchain*** -Understand the main ideas and concepts of Blockchain ***2.History and evolution of blockchain*** -Describe the origins of blockchain and evolution through key milestones like smart contracts and recognize its integration with emerging technologies and expanding applications. ***3.The need for Web3 and how it differs from Web2*** -Understand the need for Web3, identify how it addresses the limitations of Web2, and distinguish the key differences between the two. ***4. Key concepts: blocks, transactions, decentralized networks*** -Understand the key concepts of blockchain, including blocks, transactions, and decentralized networks, and explain their roles in enabling secure and transparent systems. ***5. Blockchain vs. traditional databases*** -Identify the comparison of blockchain with traditional databases, understand their fundamental differences, and the unique advantages of blockchain technology.

Module 2	**Blockchain Architectures**
Module Overview	To introduce students to Blockchain Technology and Traditional Databases, highlighting their fundamental differences in architecture, operation, and purpose. It covers public, private, and consortium blockchains, permissioned vs. permissionless networks, and Distributed Ledger Technology (DLT), while also comparing major blockchain platforms like Bitcoin and Ethereum.
Module Credit Hours	2
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Timely Module Completion – 60% | Quiz – 40%
Module Learning Outcomes	***1.Public, private, and consortium blockchains*** -Distinguish between public, private, and consortium blockchains, and understand the use cases and benefits. ***2. Permissioned vs. permissionless networks*** -Differentiate between permissioned and permissionless networks, and understand their respective advantages and use cases in blockchain technology. ***3. Distributed ledger technology (DLT)*** -Understand the concept of Distributed Ledger Technology (DLT), its key features, and recognize its role in enabling secure and transparent data management across decentralized networks. ***4. Comparison of major blockchain platforms (Bitcoin, Ethereum, etc.)*** -Compare major blockchain platforms such as Bitcoin, Ethereum, and others, understanding their unique features, use cases, and differences in consensus mechanisms and scalability.

Module 3	Consensus Mechanism
Module Overview	This module aims for the students to understand the fundamental principles and functions of various consensus algorithms that enable decentralized decision-making and ensure the integrity of Blockchain networks. This includes learning about key mechanisms such as Proof of Work (PoW), Proof of Stake (PoS), and other emerging consensus protocols. Students will explore how these mechanisms facilitate agreement among distributed nodes, prevent double-spending, and maintain the security and reliability of the Blockchain. Additionally, they will analyze the strengths and limitations of different consensus methods, and gain practical insights into their implementation and impact on Blockchain performance and scalability.
Module Credit Hours	2
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Timely Module Completion – 60% | Quiz – 40%
Module Learning Outcomes	***1.Proof of Work (PoW)*** -Understand the concept of Proof of Work (PoW), understand how it functions in blockchain networks, and recognize its role in ensuring security and consensus. ***2.Proof of Stake (PoS)*** -Understand the concept of Proof of Stake (PoS) and recognize its benefits in terms of energy efficiency and security in blockchain networks. ***3.Delegated Proof of Stake (DPoS)*** -Understand the concept of Delegated Proof of Stake (DpoS), understand how it enhances scalability and governance. ***4.Practical Byzantine Fault Tolerance (PBFT)*** -Understand the concept of Practical Byzantine Fault Tolerance (PBFT), how it ensures consensus in distributed systems, and its advantages in terms of fault tolerance and scalability. ***5.Other consensus algorithms and their trade-offs*** -Identify various consensus algorithms, and evaluate the trade-offs between them in terms of security, scalability, and energy efficiency.

Module 4	**Cryptography and Security Blockchain**
Module Overview	This module aims for students to gain a solid understanding of fundamental cryptographic concepts and their crucial role in securing Blockchain Technology. This includes learning about encryption, decryption, hash functions, public and private keys, and digital signatures. Students will explore how these elements ensure data integrity, authenticity, and security within a Blockchain system. Additionally, they will study common cryptographic algorithms and their applications in Blockchain, and gain practical experience by applying these techniques in blockchain projects, preparing them to implement and analyze secure Blockchain solutions.
Module Credit Hours	6
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Timely Module Completion – 60% | Quiz – 40%
Module Learning Outcomes	***1.Cryptography for Blockchain*** -Explain the role of cryptography in blockchain, understand key concepts. ***2.Cryptographic hash functions*** -Understand the concept of cryptographic hash functions and role in ensuring data integrity and security. ***3.Public-key cryptography*** -Understand the concept of public-key cryptography, understand how it enables secure communication and transactions, and recognize its role in blockchain security. ***4.Digital signatures*** -Understand how they ensure integrity in blockchain transactions, and recognize their role in securing digital identities. ***5.Merkle trees and their role in blockchain*** - Understand how they organize and verify data efficiently, and recognize their role in enhancing the security and scalability ***6.Security and Privacy in Blockchain*** -Explain the key principles of security and privacy in blockchain, understand the methods used to protect data ***7.Blockchain vulnerabilities and attacks*** - Identify common blockchain vulnerabilities and attacks, understand their potential impact on blockchain systems ***8. Privacy-enhancing techniques (e.g., zero-knowledge proof)*** -Understand how they protect user data, and recognize their role in ensuring privacy within blockchain systems. ***9.Identity management on the blockchain*** - Understand how decentralized identities work, and recognize the benefits of blockchain for secure and transparent identity verification. ***10.Auditing and compliance in blockchain systems*** - Explain the concepts of auditing and compliance in blockchain systems, understand how blockchain ensures transparency and traceability.

Module 5	**Blockchain Use Cases**
Module Overview	This module explores Blockchain Technology's applications across industries, focusing on its role in enhancing transparency, security, and efficiency in sectors like finance, healthcare, supply chain, and government. Through case studies, students will analyze benefits, challenges, and best practices, while developing critical thinking to evaluate Blockchain's suitability and envision its impact on future technology and business.
Module Credit Hours	2
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Timely Module Completion – 60% | Quiz – 40%
Module Learning Outcomes	***1.Blockchain in finance and banking (Tokenization)*** -Understand its applications in finance and banking, and recognize how it enhances liquidity, efficiency, and security in financial transactions. ***2.Supply chain management with blockchain (Case for Halal Certification)*** - Understand its application in ensuring transparency and traceability, and recognize the role of blockchain in Halal certification processes. ***3.Healthcare applications*** -Understand how it enhances data security, privacy, and interoperability, and recognize its potential in improving patient care and administrative efficiency. ***4.Intellectual property and digital rights management*** -Understand how it ensures ownership, transparency, and secure transactions, and recognize its role in protecting digital assets and copyrights. ***5.Voting systems and governance (DAOs)*** - Understand how decentralized autonomous organizations (DAOs) work, and recognize the benefits of blockchain in ensuring transparency, security, and trust in governance processes.

Module 6	**Social, Economic, and Legal Implications of Blockchain Technology**
Module Overview	This module aims for students to develop a comprehensive understanding of how Blockchain Technology impacts various aspects of society, economy, and regulatory frameworks. Students will explore how Blockchain can drive social change by promoting transparency and trust, analyze its economic effects including disruptions to traditional business models and financial systems, and examine the evolving legal landscape surrounding Blockchain adoption. By investigating case studies and current events, students will gain critical insights into the benefits, challenges, and ethical considerations of Blockchain implementation, preparing them to navigate and contribute to the development of Blockchain in a responsible and informed manner.
Module Credit Hours	2
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Timely Module Completion – 60% | Quiz – 40%
Module Learning Outcomes	***1.Decentralization and its impact on traditional systems*** -Recognize how it challenges centralized models in areas like finance, governance, and data management. ***2.Economic models and token economics*** -Understand how tokens function within blockchain ecosystems, and recognize their role in incentivizing behavior and driving value creation. ***3.Regulatory and legal considerations for blockchain technology*** -Understand the challenges of compliance, and recognize the role of legislation in shaping the future of blockchain adoption. ***4.Social impact and challenges of blockchain adoption*** -Understand the challenges it presents, and recognize its potential to transform industries and address issues like financial inclusion and transparency.

Module 7	**Blockchain Development Tools and Programming Languages**
Module Overview	This module aims for students to equip them with the knowledge and practical skills necessary to effectively utilize the various tools and frameworks available for Blockchain development. This includes understanding the functionality and applications of popular development environments, libraries, and frameworks. Students will learn to set up and configure development environments, write and test smart contracts, and deploy decentralized applications. By mastering these tools, students will be prepared to streamline the development process, improve code quality, and create robust, scalable Blockchain solutions that meet industry standards and requirements.
Module Credit Hours	12
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Attendance – 40% | Quiz – 20% |Assignment – 40%
Module Learning Outcomes	***1. Overview of project structure (smart contract, back end, front end)*** - Explain the structure of a blockchain project, understand the roles of smart contracts, back-end, and front-end components, and recognize how they interact to create a functional decentralized application (dApps) ***2. Introduction to Remix IDE (Tool)*** -Understand the features and functionality of Remix IDE, use it effectively for smart contract development, and recognize how it integrates with blockchain projects to enable testing, deployment, and debugging. ***3. Introduction to VS Code IDE (Tool)*** -Understand the uses for blockchain development, and recognize how it supports writing, testing, and debugging code for smart contracts and decentralized applications. ***4. Introduction to HTML & CSS*** -Understand the fundamentals of HTML and CSS, use them to structure and style web pages, and recognize how these technologies contribute to the front-end development of dApps. ***5. Introduction to JavaScript (Programming Language)*** -Understand the fundamentals of JavaScript, use it to develop dynamic web pages, and recognize its role in the front-end and back-end development of dApps. ***6. Frameworks and Security*** -Explore popular frameworks for building dApps, and recognize key security practices essential for ensuring the integrity and safety of blockchain systems.

Module 8	**Smart Contracts**
Module Overview	This module aims for students to understand the creation, deployment, and execution of self-executing contracts with the terms of the agreement directly written into code. This involves learning the fundamental concepts of smart contracts, exploring their functionality and advantages over traditional contracts, and studying the programming languages and platforms used to develop them. Students will gain practical experience in writing and deploying smart contracts, examining real- world use cases, and understanding the legal and security implications. By the end of the course, students will be equipped to design, implement, and critically evaluate smart contracts within Blockchain ecosystems.
Module Credit Hours	16
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Attendance – 40% | Quiz – 20% |Assignment – 40%
Module Learning Outcomes	***1.Introduction to smart contracts*** -Understand the concept of smart contracts, explain how they automate and execute agreements on the blockchain. ***2.Introduction to Solidity (Programming Language)*** -Understand the basics of Solidity, use it to write smart contracts for blockchain applications, and recognize its role in enabling secure and decentralized functionality. ***3.Ethereum Virtual Machine (EVM)*** -Understand how it executes smart contracts on the Ethereum blockchain, and recognize its importance in ensuring the security and decentralization of blockchain applications. ***4.Use cases and potential applications*** -Understand how they can automate processes across industries, and recognize their role in enabling secure, transparent, and decentralized systems. ***5.Trust Minimized Agreements (Unbreakable promises via smart contracts)*** -Understand how smart contracts create unbreakable agreement, and recognize their role in eliminating the need for intermediaries while ensuring security and transparency in transactions. ***6.Introduction to Hard Hat (Framework)*** - Know the features and functionality of Hard Hat, use it to develop, test, and deploy smart contracts, and recognize its role in simplifying the blockchain development process. ***7.Developing and deploying smart contracts using Solidity and development tools*** -Develop and deploy smart contracts using Solidity, utilize development tools and understand the process of integrating smart contracts into blockchain. ***8.ERC 20, ERC 721, ERC 1155*** -Explain their roles in creating tokens and NFTs, and implement these standards in smart contracts. ***9. Security best practices for blockchain development*** -Identify common vulnerabilities in smart contracts, and implement strategies to ensure the integrity, reliability, and safety.

Module 9	Decentralized Applications – Front End
Module Overview	This module provides an in-depth exploration of front-end development for blockchain decentralized applications (dApps). Students will learn how to build intuitive user interfaces using modern front-end architectures, with a focus on enhancing user experience through effective use of HTML, CSS, and JavaScript. The module also addresses key challenges such as scalability and security in decentralized environments, teaching students' best practices for securing front-end applications and ensuring smooth interactions with blockchain networks. Additionally, students will gain hands-on experience in front-end development, deployment strategies, and maintaining dApps in live environments, equipping them with the skills to create professional and functional decentralized applications.
Module Credit Hours	12
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Attendance – 40% | Quiz – 20% |Assignment – 40%
Module Learning Outcomes	***1.Front-End Architectures*** -Analyze front-end architectures, understand their structural design for decentralized applications (dApps), and implement robust user interfaces. ***2.React (.JS & .CSS)*** -Utilize React.js for building dynamic and responsive front-end applications, integrate React with CSS for styling, and implement seamless user interfaces. ***3.Addressing Scalability and Security in Front-End Development*** - Implement strategies for addressing scalability and security challenges in front-end development and ensure secure interactions with blockchain networks. ***4.Front-End Development and Deployment*** -Design, develop, and deploy front-end interfaces for decentralized applications (dApps), integrate them with blockchain systems, and ensure a seamless and secure user experience.

Module 10	Decentralized Applications – Back End
Module Overview	This module provides a comprehensive exploration of back-end development for blockchain decentralized applications (dApps). Students will learn about back-end architectures and how to build robust server-side applications that interact with blockchain networks using Node.js and the Express framework. The module emphasizes key considerations for scalability and security in back-end development, ensuring that applications can handle increasing loads and protect user data. Additionally, students will gain hands-on experience with databases like MongoDB and SQL for managing and storing decentralized data. The course culminates with deploying and maintaining the back-end infrastructure of dApps, preparing students to build secure, scalable, and efficient blockchain applications.
Module Credit Hours	12
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Attendance – 40% | Quiz – 20% |Assignment – 40%
Module Learning Outcomes	***1. Back-End Architectures*** -Analyze back-end architectures, design scalable and efficient systems for decentralized applications (dApps). ***2. Node.js (Runtime)*** -Utilize Node.js as a runtime environment for back-end development, build scalable and efficient server-side applications, and integrate them seamlessly. ***3. Express (Framework)*** -Use Express.js as a web application framework, build robust and scalable back-end APIs for decentralized applications (dApps). ***4. Databases (MongoDB & SQL)*** -Integrate and manage databases like MongoDB and SQL, understand their role in storing and querying data ***5. Integration with existing systems and APIs*** -Integrate decentralized applications (dApps) with existing systems and APIs, ensure smooth data exchange between blockchain networks and legacy systems. ***6. Addressing Scalability and Security in Back-End Development*** -Implement strategies to address scalability and security challenges in back-end development, optimize server-side performance, and ensure secure interactions. ***7. Development and Deployment of Back-End*** -Develop, test, and deploy back-end systems for decentralized applications (dApps), integrate them with blockchain networks.

Module 11	Final Assessment
Module Overview	This module is designed to expose students to demonstrate their understanding of Blockchain Technology by analyzing its principles, evaluating its applications, and proposing a blockchain-based solution to a real-world problem.
Module Credit Hours	22
Mode of Delivery	Phenomena-Based Learning Delivered through LMS
Module Assessment	Technical Functionality – 60% |Conceptual Understanding – 40%
Final Assessment Outcomes	1. Comprehensive project or case study 2. Application of learned concepts to real-world problems 3. Presentation and evaluation of final project
Submission Requirements	1. All project submissions must be carefully prepared and uploaded to Maal's official GitHub accounts. Ensure that the files are properly named, organized, and meet the specified guidelines. 2. Projects should be hosted on the designated repositories within Maal GitHub, with appropriate documentation included for clarity and ease of review. This will ensure uniformity, accessibility, and efficient project management. 3. Project Assignment to be uploaded and hosted on: https://github.com/maaledu

Grading System and Graduating Overview

Our grading system is designed to provide a fair and transparent evaluation of academic performance. Both individual modules and the overall program are assessed using a numerical grading system, as illustrated in Figure 1.

To determine the final award, we calculate the **Grade Point Average (GPA)** for each term and the **Cumulative Grade Point Average (CGPA)** across the entire program. These metrics serve as benchmarks for academic achievement and outline the requirements for successfully completing the program.

Numeric Grade	Grade	GPA
80-100	A	4.00
75-79	A-	3.67
70-74	B+	3.33
65-69	B	3.00
60-64	B-	2.67
56-59	C+	2.33
50-55	C	2.00
45-49	C-	1.67
40-44	D	1.00
0-39	F	0.00

- Minimum to **Graduate** –75% or 3.67 CGPA*
- Minimum to **Pass** –70% or 3.33 GPA*

*GPA - Grade Point Average
*CPGA – Cumulative Grade Point Average

Figure 1: Assessment numerical system used in the program

To Pass A Module, A Learner Must Achieve 70% However, To Graduate the Program; A Learner Must Achieve
A MINIMUM OF 75% OR CGPA 3.67

Completion of the entire program consists of:

- Ten (10) Learning Modules and one (1) Final Assessment.
- Fulfill the **90-credit hours** requirement.
- Timely quiz completions, and high-quality assignment submissions.
- Real Time Project* consist of coding & documentation (pertaining to the logic and solution of the coding and description of the solution and results). Students will be given a maximum duration of 45 days for the final project.
- Minimum of **75% or CGPA 3.67**

**Students must decide the solution they will work on and submit to the academic coordinator through email prior to beginning of the project.*