

Node Ops Syndicate Schedule					
DevOps Cohort (For Web3 Blockchain Professionals)					
S/N	Date	Time	Speaker	Topic	Assignment
1	15/03/2025	5:00 PM - 6:00 PM	Amarachi Ugwu	Module 1: Introduction to Blockchain & Web3 <ul style="list-style-type: none"> Evolution of blockchain technology Key characteristics of blockchain (Decentralization, Immutability, Transparency) Understanding Layer 1 vs. Layer 2 solutions Overview of different blockchain architectures (Ethereum, Bitcoin, Cosmos, Polkadot, Solana, etc.) 	Research and write a comparison report on two blockchain architectures of your choice.
2	22/03/2025	5:00 PM - 6:00 PM	Link: https://www.linkedin.com/in/amarachiugwu/	Module 2: Cryptography & Consensus Mechanisms <ul style="list-style-type: none"> Hash functions and Merkle trees Public and private key cryptography Digital signatures and zero-knowledge proofs (ZKPs) Consensus algorithms: PoW, PoS, DPoS, PBFT, and their trade-offs 	Implement a simple hashing function and demonstrate how it works.
3	29/03/2025	5:00 PM - 6:00 PM	Kazeem Olaniyi https://www.linkedin.com/in/kazeem-olaniyi/	Module 3: Smart Contracts & EVM <ul style="list-style-type: none"> What are smart contracts? Solidity fundamentals & smart contract security Ethereum Virtual Machine (EVM) deep dive Gas fees and optimization techniques 	Write and deploy a basic smart contract on Ethereum Testnet.
4	05/04/2025	5:00 PM - 6:00 PM		Module 4: Wallets & Key Management <ul style="list-style-type: none"> Overview of crypto wallets (Hot vs. Cold wallets) MetaMask Deep Dive: <ul style="list-style-type: none"> Installing and setting up MetaMask Adding a network (Ethereum, Polygon, Binance Smart Chain, etc.) Managing private keys and security best practices Getting testnet faucet tokens Opening a Centralized Wallet: <ul style="list-style-type: none"> Creating an account on centralized exchanges (Binance, Coinbase, etc.) Depositing and withdrawing funds KYC process and security considerations 	Set up a MetaMask wallet, add a testnet network, and receive faucet tokens.
5	12/04/2025	5:00 PM - 6:00 PM	Ayomide Adebara	Module 5: Blockchain Transactions & Token Standards <ul style="list-style-type: none"> Anatomy of a blockchain transaction UTXO vs. Account-based models P2P Transactions: <ul style="list-style-type: none"> Sending and receiving crypto assets Using wallet addresses and QR codes Transaction fees and confirmations Transaction Analysis: <ul style="list-style-type: none"> Understanding transaction hash, nonce, gas price, and gas limit How to analyze transactions on blockchain explorers (Etherscan, BSCScan, etc.) Debugging failed transactions ERC-20, ERC-721, ERC-1155 token standards DeFi protocols and their mechanisms (DEXs, AMMs, Lending/Borrowing) 	Perform a P2P transaction on a testnet and analyze the transaction details on a blockchain explorer.
6	19/04/2025	5:00 PM - 6:00 PM	Chinonso	Module 6: Zero-Knowledge Proofs & Privacy in Blockchain <ul style="list-style-type: none"> Introduction to ZKPs and their significance zk-SNARKs vs. zk-STARKs Applications of ZKPs in privacy-focused blockchains (Zcash, Aztec, etc.) Rollups: ZK-Rollups vs. Optimistic Rollups 	Write a summary on how ZKPs enhance blockchain privacy and their real-world use cases.

7	26/04/2025	5:00 PM - 6:00 PM		Module 7: Blockchain Governance & DAOs <ul style="list-style-type: none"> ● On-chain vs. Off-chain governance models ● DAO fundamentals: Treasury management and voting mechanisms ● Notable DAO case studies (MakerDAO, Uniswap, Aragon) ● The role of governance tokens in decentralized decision-making 	Research and analyze a DAO's governance structure and decision-making process.
8	03/05/2025	5:00 PM - 6:00 PM		Module 8: Real-World Applications & Capstone Project <ul style="list-style-type: none"> ● Decentralized Identity (DID) and Self-Sovereign Identity (SSI) ● NFTs beyond art: Gaming, real estate, and intellectual property ● Capstone project: Deploying a smart contract & interacting with it via a blockchain wallet ● Presentations & peer reviews 	Develop and present a real-world blockchain use case as your capstone project.