

Customized N8N Course

Customized N8N Course: AI-Powered Content Creation & Automation

Course Overview

This intensive course is specifically designed for content creators and business owners who want to automate their content creation workflow using N8N. You'll learn to create automated systems for generating videos, audio, images, and intelligent chatbots integrated with WhatsApp and Email, all customized to your unique voice and brand tone. Additionally, you'll master database integration with MySQL and PostgreSQL for intelligent data management and AI-powered querying. The course includes essential JavaScript training to help you work effectively with N8N's code nodes and create advanced custom automations.

Duration: 4 Days | 8 Hours per Day (32 Hours Total)

Prerequisites

VPS Hosting Requirement (Critical for Production Use):

Why VPS is Required:

For N8N to work reliably and be accessible 24/7, you need a Virtual Private Server (VPS). While you can test N8N locally on your computer during learning, a VPS is essential for:

- **Always-on automation:** Workflows run even when your computer is off
- **Webhook reliability:** WhatsApp, email, and API integrations need a stable URL
- **Database connectivity:** Secure connection to MySQL/PostgreSQL
- **Professional deployment:** No interruptions from local system issues
- **Remote access:** Manage automations from anywhere

MODULE 1: N8N Fundamentals & Content Creation Automation



Duration: 8 Hours

Section 1.1: N8N Fundamentals for Content Creators (1.5 hours)

What You'll Learn:

- Understanding workflow automation specifically for content creation
- N8N interface navigation and essential components
- Setting up your N8N environment for content projects
- Introduction to nodes, triggers, and workflow execution
- Understanding when to use low-code vs code nodes

What You'll Build:

- Your first simple automation: Auto-posting content to multiple social media platforms
- A basic content scheduler workflow

Example: Create a workflow that automatically posts your morning quote to Facebook, Twitter, and LinkedIn at 8 AM daily

Section 1.2: JavaScript Essentials for N8N - Part 1 (2 hours)

What You'll Learn:

- JavaScript basics: variables, data types, and operators
- Working with strings, numbers, and booleans in N8N context
- Understanding objects and arrays for data manipulation
- Conditional statements (if/else) for workflow logic
- Accessing and manipulating data from previous nodes using `$input.item.json`

What You'll Build:

- Simple code node: Extract specific data from incoming webhook
- Text manipulation workflow: Clean and format user inputs automatically
- Conditional routing based on data values using JavaScript

Example: Create a workflow where incoming customer messages are analyzed - if message contains "urgent", route to priority queue; otherwise, route to standard queue using JavaScript code node

Section 1.3: AI Image Generation Integration (1.5 hours)

What You'll Learn:

- Integrating AI image generation tools (DALL-E, Midjourney, Stable Diffusion) with N8N



- Creating automated image generation workflows based on text prompts
- Batch image creation for social media content
- Image resizing and optimization within workflows
- Storing and organizing generated images automatically

What You'll Build:

- An automated image generator that creates 5 social media graphics from a single topic input
- A workflow that generates thumbnail images for blog posts automatically
- Brand-consistent image generator with your color palette and style

Example: Input "5 tips for productivity" and automatically generate 5 unique Instagram carousel images with your branding

Section 1.4: AI Audio & Video Content Generation (3 hours)

What You'll Learn:

- Integrating text-to-speech AI services (ElevenLabs, Google Text-to-Speech, Azure TTS)
- Cloning your voice for authentic audio content
- Creating automated podcast intro/outro generation
- Converting blog posts to audio format automatically
- Integrating AI avatar platforms (D-ID, HeyGen, Synthesia) with N8N
- Creating and training your personal digital avatar
- Script-to-video automation workflows

What You'll Build:

- Voice cloning workflow: Upload 5-minute voice sample to generate your AI voice
- Blog-to-podcast automation: Convert written articles to audio with your cloned voice
- Personal avatar video generator: Input text → Output video of YOU speaking
- Multi-language video generator using your avatar

Example: Write a 500-word article, automatically generate a podcast episode in your voice, and create a 2-minute video with your avatar presenting the same content in English, Spanish, and French

MODULE 2: JavaScript for Advanced Automation & Data Processing

Duration: 8 Hours

Section 2.1: JavaScript Essentials for N8N - Part 2 (2.5 hours)

What You'll Learn:

- Loops (for, forEach, map) for processing multiple items
- Array methods: filter, find, reduce, sort for data manipulation
- String methods: split, replace, trim, substring for text processing
- Working with JSON data: parse, stringify, and nested objects
- Date and time manipulation in JavaScript
- Regular expressions (regex) basics for pattern matching

What You'll Build:

- Bulk data processor: Process 100+ customer records in one workflow
- Smart text analyzer: Extract emails, phone numbers, URLs from text automatically
- Date-based workflow: Send different messages based on time of day/day of week
- Data aggregator: Combine multiple API responses into single formatted output

Example: Receive a CSV with 500 customer emails → Use JavaScript to filter only customers who haven't purchased in 30 days → Send personalized re-engagement email with dynamic content based on their last purchase category

Section 2.2: JavaScript Functions & Error Handling (1.5 hours)

What You'll Learn:

- Creating reusable functions in N8N code nodes
- Understanding scope and variables in JavaScript
- Try-catch blocks for error handling in workflows
- Working with async/await for API calls
- Debugging JavaScript code in N8N
- Best practices for clean, maintainable code in automation

What You'll Build:

- Custom validation function: Check email, phone, URL formats before processing
- Error-proof workflow: Gracefully handle API failures and continue processing
- Reusable code snippets library for common tasks
- Logging system to track workflow execution with detailed error messages

Example: Create a workflow that processes payments - if payment API fails, JavaScript catches the error, logs it, sends you a notification, and automatically retries after 5 minutes without breaking the entire workflow

Section 2.3: JavaScript for API Integration & Data Transformation (2 hours)

What You'll Learn:

- Making HTTP requests with JavaScript in N8N
- Parsing and transforming API responses
- Building custom API request bodies dynamically
- Handling pagination in API calls
- Working with authentication tokens and headers
- Combining data from multiple APIs intelligently

What You'll Build:

- Multi-API data aggregator: Pull data from 3 different services and merge intelligently
- Dynamic API caller: Generate API requests based on user input
- Rate-limited API handler: Process 1000 requests without hitting API limits
- Custom webhook processor with data validation

Example: Customer submits form with their business name → JavaScript calls Google Places API for business info → Calls social media APIs for follower counts → Combines all data into comprehensive business report → Saves to database → Emails report in branded PDF format

Section 2.4: Building Custom AI Chatbots with Your Brand Voice (2 hours)

What You'll Learn:

- Integrating ChatGPT, Claude, or custom LLMs into N8N workflows
- Using JavaScript to customize AI prompts dynamically
- Training chatbots with your brand voice, tone, and personality
- Creating knowledge bases from your existing content
- Context-aware conversation flows with JavaScript logic
- Personality customization and response templates

What You'll Build:

- Your brand's AI assistant: Trained on your FAQs, product info, and communication style
- Multi-personality chatbot (professional for business, casual for social media)
- Context-remembering conversation system using JavaScript variables
- Dynamic prompt generator that adapts based on customer history

Example: Create a chatbot that analyzes customer's previous 5 conversations using JavaScript, identifies their interests, and generates personalized AI responses that reference their past interactions - all in your authentic communication style

MODULE 3: WhatsApp, Database Integration & Advanced Workflows

Duration: 8 Hours

Section 3.1: WhatsApp Business Automation Integration (2 hours)

What You'll Learn:

- Connecting N8N with WhatsApp Business API
- Using JavaScript to create intelligent message routing
- Automated message responses based on keywords with regex
- Creating interactive WhatsApp menus and workflows
- Multimedia message automation (sending images, videos, documents)
- Lead capture and qualification through WhatsApp
- Integration with CRM systems for contact management

What You'll Build:

- Complete WhatsApp business automation system
- Auto-responder for common inquiries in your tone
- Lead qualification chatbot that books appointments automatically
- Product catalog browser via WhatsApp with JavaScript-powered search
- Automated order confirmation and tracking system

Example: Customer messages "I need information about your coaching program" → JavaScript analyzes message intent → Chatbot responds in your tone → Sends video overview and pricing PDF → Uses JavaScript to check your calendar API → Books consultation call → Saves all data to database

Section 3.2: Database Integration - MySQL & PostgreSQL Setup (2 hours)

What You'll Learn:

- Connecting N8N with MySQL and PostgreSQL databases
- Using JavaScript to build dynamic SQL queries
- Database authentication and security best practices
- Creating, reading, updating, and deleting (CRUD) operations
- JavaScript for data validation before database insertion
- Setting up database schemas for content and customer data
- Complex queries with JOIN operations using JavaScript

What You'll Build:

- Database connection workflow for customer data storage
- JavaScript-powered data validator: Clean data before saving to database
- Automated customer information capture and storage system
- Content metadata database (storing info about generated videos, images, audio)
- Product/service catalog database integrated with WhatsApp

Example: When customer interacts with WhatsApp bot → JavaScript extracts and validates name, email, phone → Checks if customer exists in PostgreSQL using custom query → Updates existing record or creates new one → Links conversation history → All with proper error handling

Section 3.3: AI-Powered Database Querying with JavaScript (2 hours)

What You'll Learn:

- Natural language to SQL query conversion using AI
- Using JavaScript to sanitize and secure AI-generated queries
- Integrating AI (ChatGPT/Claude) for intelligent database queries
- Automated report generation from database data
- Creating conversational database interfaces
- Complex query automation (joins, aggregations, filtering) with JavaScript
- Data visualization preparation using JavaScript

What You'll Build:

- Natural language database query system: "Show me all customers from last month" → AI generates SQL → JavaScript validates → Returns formatted results
- WhatsApp bot that answers database questions ("How many orders did I get yesterday?")
- Automated weekly/monthly report generator pulling data from your database
- Customer lookup system via WhatsApp using natural language
- Dashboard data processor: JavaScript formats database data for charts and graphs

Example: Customer asks WhatsApp bot "What's the status of my order #12345?" → AI interprets question → JavaScript builds secure SQL query → Queries PostgreSQL database → JavaScript formats response in conversational tone → Returns order status, tracking info, and estimated delivery with personalized upsell suggestion based on order history

Section 3.4: Advanced Video Workflows & Multi-Platform Publishing (2 hours)

What You'll Learn:

- Creating video series automation (course content, tutorials)
- Using JavaScript for dynamic video script generation
- Automated video editing and scene transitions
- Adding dynamic elements with code (text overlays, logos, CTAs)
- Video format conversion for different platforms (YouTube, Instagram Reels, TikTok)
- Content calendar integration and batch production
- JavaScript-powered scheduling logic for optimal posting times

What You'll Build:



- Complete video production pipeline: Script → Avatar Video → Editing → Platform-specific versions
- Automated tutorial video series generator
- Social media video repurposing workflow (1 long video → 10 short clips)
- 30-day content automation system: Generate a month's worth of videos, images, and audio
- Multi-platform publishing scheduler with intelligent timing

Example: Record one 10-minute training video → JavaScript splits into 10 segments → Generates platform-specific captions → Creates Instagram Reels (9:16), YouTube Shorts (vertical), LinkedIn posts (square) → Analyzes your audience engagement data → Schedules posts at optimal times throughout the month

MODULE 4: Email Automation & Complete System Integration

Duration: 8 Hours

Section 4.1: AI-Powered Email Response System (2 hours)

What You'll Learn:

- Connecting email providers (Gmail, Outlook) with N8N
- JavaScript for intelligent email parsing and classification
- AI-powered email classification and routing
- Automated email drafting in your personal tone
- Using JavaScript to create dynamic email templates
- Priority inbox management and auto-labeling
- Follow-up automation and email sequences

What You'll Build:

- Personal email assistant: Drafts replies in your writing style
- Intelligent email categorization system using JavaScript (urgent, can-wait, spam)
- Auto-responder for common email types (meeting requests, pricing inquiries)
- JavaScript-powered email analyzer: Extracts action items and deadlines
- Email nurture sequence automation with conditional logic

Example: Receive inquiry email → JavaScript extracts key information (name, company, request type) → AI reads it and drafts personalized response in your style → JavaScript checks if similar inquiry exists in database → Merges relevant info → Sends for your approval → If approved, sends reply, adds contact to relevant email sequence, and creates follow-up task

Section 4.2: Email Content Generation & Advanced JavaScript Techniques (2.5 hours)

What You'll Learn:

- AI-powered email copywriting integrated with N8N
- JavaScript for dynamic content personalization at scale
- Creating email templates that match your voice
- Advanced JavaScript: Working with HTML templates
- A/B testing automation for email campaigns using JavaScript logic
- Converting blog posts to email newsletters with custom formatting
- Integrating with email marketing platforms (Mailchimp, ConvertKit)

What You'll Build:

- Blog-to-newsletter automation with JavaScript content extraction
- Personalized email campaign generator (1000+ unique emails from one template)
- JavaScript-powered A/B testing engine: Automatically tests subject lines and content
- Automated welcome series for new subscribers with branching logic
- Dynamic email designer: JavaScript generates HTML emails based on content type

Example: Publish new blog post → JavaScript extracts main points, quotes, and images → AI generates newsletter in your conversational style with personalized intro for each subscriber segment → JavaScript creates 3 subject line variations → Sends A/B test to first 10% → Automatically selects winning version → Sends to remaining 90% at optimal times based on past engagement data

Section 4.3: JavaScript Mastery - Custom Automation Functions (1.5 hours)

What You'll Learn:

- Building complex custom functions for specific business needs
- JavaScript libraries you can use in N8N (moment.js, lodash, etc.)
- Creating mini-applications within N8N using code nodes
- Performance optimization for JavaScript in workflows
- Advanced data structures: Maps, Sets, and when to use them
- Handling large datasets efficiently with JavaScript

What You'll Build:

- Custom business logic processor for your specific needs
- Intelligent data merger: Combine data from multiple sources with deduplication
- Advanced scheduler: Calculate optimal times based on multiple factors
- Custom analytics engine: Process thousands of records and generate insights
- Reusable JavaScript function library for your future workflows



Example: Create a smart content performance analyzer that processes data from YouTube, Instagram, Facebook, TikTok → JavaScript normalizes different data formats → Calculates engagement scores using custom algorithm → Identifies best-performing content patterns → Generates weekly strategy recommendations → Sends formatted report with actionable insights

Section 4.4: Complete System Integration & Master Dashboard (2 hours)

What You'll Learn:

- Connecting all automation systems into one unified workflow
- JavaScript for orchestrating complex multi-step processes
- Creating your personal AI content assistant dashboard
- Integrating database with content creation and communication systems
- Real-time monitoring and analytics with JavaScript
- Error handling and fallback procedures across entire system
- Security best practices for automated workflows
- Scaling your automation as your business grows

What You'll Build:

- Master control dashboard: Monitor all automations from one place
- End-to-end content creation pipeline with JavaScript orchestration
- Complete customer journey automation: Lead capture → Database storage → Nurturing → Conversion → Onboarding
- Your "Digital Twin" system: Handles 80% of communication automatically
- Unified database that connects content, customers, and conversations
- Emergency override system: Manual controls for critical workflows