

# Leveraging OpenAI for Enterprise Solutions -

## TTAI2203

Use Cutting-Edge Tech to Generate Code, Documentation, and Tests, Enhance User Interfaces, and Create Flexible, Dynamic Content

**Duration:** 4 Days

**Skill Level:** Intermediate

**Available Format:** Instructor-Led Online; Instructor-Led, Onsite In Person ; Blended; On Public Schedule

This four-day immersive masterclass provides a comprehensive exploration of OpenAI's GPT-5 and its transformative impact on enterprise solutions.

## What You'll Learn

### Overview

This four-day immersive masterclass provides a comprehensive exploration of OpenAI's GPT-5 and its transformative impact on enterprise solutions. You will learn to harness the power of the latest AI models to automate complex workflows, derive deep insights from data, and build intelligent, multimodal applications. The course is designed to be intensely practical, with a strong emphasis on hands-on labs and real-world business use cases. We will go far beyond basic prompting, focusing on the architectural and strategic shifts required to build robust, scalable, and secure AI systems with GPT-5.

Your 4-hour module on advanced speech-to-text has been integrated as a key component of Day 2, situated within the broader context of multimodal AI, ensuring a seamless and logical flow for learners.

### Objectives

Upon completion of this course, participants will be able to:

- Architect and build end-to-end enterprise applications using the GPT-5 model family.
- Master advanced API techniques for reasoning, multimodal inputs, and agentic workflows.
- Implement sophisticated knowledge retrieval systems using the latest embedding models.
- Design and prototype intuitive user interfaces for AI applications using modern tools like ChatGPT Canvas.
- Securely train and deploy custom models using private business data.
- Integrate AI capabilities with existing enterprise systems using Connectors.
- Optimize for performance, cost, and security across all AI deployments.

## Audience

This intermediate to advanced level course is designed for:

- Experienced Developers looking to leverage GPT-5 for business applications
- Data Scientists seeking to implement AI-driven solutions in enterprise environments
- Business Intelligence Professionals planning to integrate AI into their workflows
- Technical Leaders responsible for enterprise AI adoption strategies
- Product Managers working with AI-powered features and products
- Solution Architects designing AI-integrated systems

## Pre-Requisites

This course is highly technical in nature. To gain the most from attending, you should possess the following incoming skills:

- **Programming Proficiency:** Basic working knowledge of Python programming, including data structures, control flow, and functions
- **Python Experience:** Python programming experience with syntax and constructs, experience with NumPy and Pandas
- **AI/ML Foundation:** Basic understanding of artificial intelligence and machine learning principles
- **API Knowledge:** Understanding the basic principles of APIs, including how to make API calls and handle responses
- **NLP Exposure:** Some prior exposure to NLP concepts would be beneficial given the course's focus on large language models
- **Software Development:** Experience in developing, testing, and deploying software applications

TTAI2020      AutoGPT in Action: Artificial General Intelligence (AGI) Basics for Everyday Business Use

TTAI2105	Streamline, Optimize, Succeed! AI & AIOps Automation Basics for Non-Technical Business Users
TTAI2060	Strategic AI Dialogues: Conversational Intelligence for Business Innovation

## Agenda

### **Day 1: Foundations of the Modern AI Enterprise**

#### *Morning Session (4 hours): The GPT-5 Paradigm Shift*

- **Module 1: Introduction to GPT-5 & the Unified Architecture (2 hours)**
  - Beyond the Hype: What Makes GPT-5 an Enterprise-Ready Platform
  - The Adaptive Router: How GPT-5 Intelligently Switches Between Reasoning and Speed
  - From Models to Agents: Understanding the Shift to Autonomous Workflows
  - Lab: Your First Interaction with the GPT-5 API - A Comparative Analysis
- **Module 2: Strategic Business Implications of GPT-5 (2 hours)**
  - Identifying High-Value Use Cases for Automation and Augmentation
  - Rethinking Business Processes with Agentic AI
  - Building a Business Case for Enterprise AI Adoption
  - Workshop: Mapping GPT-5 Capabilities to Your Business Challenges

#### **Afternoon Session (4 hours): Mastering the GPT-5 API**

- **Module 3: Advanced API Techniques (2 hours)**
- Leveraging the 400K Context Window: Strategies for Coherence and Consistency
- Controlling the

Output: Advanced Prompt Engineering for Complex Reasoning

\* Cost Management: Choosing the Right Model (gpt-5, mini, nano) for the Job

\* Lab: Optimizing API Calls for Cost and Performance

- **Module 4: Introduction to Multimodal Capabilities (2 hours)**
- Beyond Text: Working with Images, Charts, and Data Visualizations
- Introduction to GPT-5's Native Speech and Vision Capabilities
- The Future of Human-Computer Interaction
- Lab: A Multimodal Q&A System with GPT-5

### **Day 2: Building Intelligent, Multimodal Applications**

*Morning Session (4 hours): Your 4-Hour Deep Dive into Advanced Speech & Voice*

- **Module 5: Advanced Speech-to-Text & Voice Integration (4 hours)**
  - **Lesson 1: Basics of OpenAI Speech to Text with GPT-5 (1 hour)**
    - Understanding GPT-5's unified approach to speech recognition
    - Comparing legacy Whisper vs. GPT-5's integrated speech capabilities
    - Start coding with Python to use GPT-5's speech-to-text features
    - Hands-on: Building a simple transcription script with GPT-5
  - **Lesson 2: Building a Podcast Transcription App (1 hour)**
    - Create an app that can transcribe podcasts using GPT-5
    - Learn to integrate GPT-5's transcription capabilities with other business apps
    - Leveraging ChatGPT Connectors for seamless workflow integration
    - See how GPT-5's reasoning can enhance transcription with context and summarization
  - **Lesson 3: Making a Subtitle Generator (1 hour)**
    - Learn to make subtitles for videos using GPT-5's multimodal capabilities
    - Build a tool that creates and adds subtitles automatically
    - Discover how to make videos more accessible with AI-powered captioning
    - Integration with video platforms and content management systems
- **Lesson 4: Making Transcription Work Faster and More Accurately (1 hour)**
  - Find out how to optimize GPT-5's transcription performance
  - Learn when to use gpt-5-nano for speed vs. gpt-5 for accuracy
  - Balance between quick results and accurate transcriptions
  - Cost optimization strategies for large-scale transcription projects

**Afternoon Session (4 hours): Knowledge Retrieval and Semantic Search**

- **Module 6: The OpenAI Embedding API in Depth (4 hours)**
  - The Theory Behind Vector Embeddings and Semantic Search
  - Advanced Strategies for Chunking and Indexing Large Document Sets
  - Building a Production-Ready Knowledge Retrieval System
  - Lab: Creating a Semantic Search Engine for Your Company's Documentation

**Day 3: Creating and Deploying AI-Powered Solutions**

*Morning Session (4 hours): Designing and Building User-Centric AI*

- **Module 7: Prototyping with ChatGPT Canvas (2 hours)**
  - From Idea to Interactive Prototype without Code
  - Collaborative Design for AI-Powered Applications
  - Workshop: Designing a User-Friendly Interface for an AI Agent
- **Module 8: Integrating AI with Business Applications (2 hours)**

- A Deep Dive into ChatGPT Connectors (Google Drive, SharePoint, GitHub, etc.)
- Building Custom Connectors for Your Proprietary Systems
- Lab: Creating a Workflow that Connects GPT-5 to Your Business Data

### **Afternoon Session (4 hours): Building Industry-Specific Solutions**

- **Module 9: Developing an AI-Powered Advisor (4 hours)**
  - Combining Embeddings, Connectors, and Reasoning for Deep Expertise
  - Strategies for Customization, Fine-Tuning, and Continuous Learning
  - Ethical Considerations and Guardrails for Autonomous Agents
  - Project: Build a Customized Advisor for a Specific Industry (e.g., Finance, Healthcare, Legal)

## **Day 4: Advanced Deployment and the Future of Enterprise AI**

### *Morning Session (4 hours): Enterprise-Grade Deployment*

- **Module 10: Training and Fine-Tuning with Private Data (2 hours)**
  - Best Practices for Data Preparation and Annotation
  - Ensuring Data Privacy, Security, and Regulatory Compliance (GDPR, HIPAA, etc.)
  - Lab: Fine-Tuning a GPT-5 Model on a Custom Dataset
- **Module 11: Building and Deploying an End-to-End GPT Application (2 hours)**
  - Architectural Patterns for Scalable and Resilient AI Systems
  - CI/CD for AI: Automating the Deployment and Maintenance of Your Models
  - Monitoring, Logging, and Alerting for AI Applications

### **Afternoon Session (4 hours): The Future of Work and Q&A**

- **Module 12: The Future of Enterprise AI (2 hours)**
  - Emerging Trends: Autonomous Agents, AI-Powered Robotics, and More
  - The Role of AI in the Future of Your Industry
  - Preparing Your Organization for the Next Wave of AI Innovation
- **Module 13: Open Forum and Final Project Showcase (2 hours)**
  - An open session for discussing advanced topics and challenges
  - Participants showcase their final projects and receive feedback
  - Course wrap-up and next steps for your AI journey

## **Related Courses**

TTAI2006	AI for Business Users Boot Camp: Transforming Business Ops with Cutting-Edge AI Apps
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TTAI2105	Streamline, Optimize, Succeed! AI & AIOps Automation Basics for Non-Technical Business Users
TTAI2050	AI Essentials: Quick Start to Basic AI Theory

All applicable course software, digital courseware files, labs, data sets, and solutions are provided in our "easy access, no install required" online Learning Experience Platform (LXP). The environment includes:

- Pre-configured Python development environment with all necessary libraries
- Access to OpenAI API with provided credits for hands-on exercises
- Sample datasets for training and testing
- Live coaching support channels
- Extended learning and post-training resources

## For More Information

Please [contact us](#) or call 844-475-4559 toll free for more information about our training services (instructor-led, self-paced or blended), coaching and mentoring services, public course enrollment or questions, partner programs, courseware licensing options and more.