

Aviation GenAI: Prompt Engineering & ChatGPT Use Cases

Learn to apply prompt engineering and ChatGPT across aviation roles, from operations to customer service and marketing.

16 Hours

DURATION

2

MODULES

25

TOPICS

15

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course offers a comprehensive exploration of AI, Machine Learning (ML), and Generative AI (GenAI), focusing on their fundamentals, real-world applications, and practical use cases. The curriculum begins with an introduction to AI, ML, and GenAI, covering key distinctions, terminologies, and tools, followed by hands-on exercises comparing traditional search engines to GenAI capabilities. It delves into the evolution and applications of AI in aviation, with emphasis on prompt engineering basics and workflow mapping for operational efficiency. In the second module, the focus shifts to role-specific prompt engineering across aviation and flight operations domain. Through interactive labs and tools like Excel, ChatGPT, and Canva, participants will develop and refine prompts, identify GenAI opportunities, and create use-case solutions tailored to their professional roles. This practical and dynamic program equips learners with the knowledge and skills to leverage GenAI effectively in diverse industries.

WHO THIS COURSE IS FOR

Target Audience:

Aviation Industry Staff

PREREQUISITES

- Basic computer use, Excel familiarity, aviation context understanding preferred
- No programming required (except optional Python lab for engineering staff)

TOOLS AND REQUIREMENTS

Tools:

- ChatGPT / Gemini / Claude
- MS Excel
- Google Colab (optional)
- Canva or PowerPoint

What You Will Learn

- Explain the differences between AI, ML and GenAI
- Identify key GenAI tools, models and terminologies
- Describe AI applications across aviation operations and safety
- Apply prompt engineering basics to craft effective prompts
- Refine prompts iteratively for different aviation roles
- Map GenAI opportunities within existing workflows
- Develop role-specific prompts for customer service and ground handling
- Create GenAI use-case solutions for commercial and support functions

COURSE SYLLABUS

2 Modules, 25 Topics

01

Lab/Exercise

Lab/Exercise

Lab/Exercise

Lab/Exercise

Lab/Exercise

AI, Machine Learning & GenAI - Fundamentals and Real-Life Applications

UNDERSTANDING AI, ML, AND GENAI

- Difference between AI, ML, GenAI
- Common terminologies
- Key GenAI tools and models

REAL-WORLD APPLICATIONS IN AVIATION

- Evolution of AI in aviation
- Use cases across aviation operations, safety, customer service

PROMPT ENGINEERING BASICS

- What are prompts? Types of prompts
- Anatomy of a good prompt
- Iterative refinement

HANDS-ON PROMPT ENGINEERING WITH SCENARIOS

- Pre-designed templates for aviation
- **Role-based refinement:** ops vs. customer support

IDENTIFYING OPPORTUNITIES & WORKFLOW MAPPING

- Where GenAI fits in your current workflow
- Rinse-repeat vs critical-thinking tasks
- Efficiency score mapping

02

2 Lab/Exercises

2 Lab/Exercises

3 Lab/Exercises

3 Lab/Exercises

Role-Based Prompt Engineering & Use Cases

CUSTOMER SERVICE & GROUND HANDLING

Automating passenger FAQs · Real-time status updates & lost baggage · Feedback summarization & sentiment analysis

FLIGHT OPERATIONS & ENGINEERING

Predictive maintenance basics · Scheduling disruptions & mitigation messages · Auto-generation of safety documentation

COMMERCIAL & MARKETING

Personalized travel offers · Market trend summarization · Creative campaign generation (copy & visual)

SUPPORT SERVICES: HR, FINANCE, IT, LEGAL

Resume screening and job description gen · Financial forecasting and automated reports · IT ticket classification, legal summarization

Practise What You Learn

#	MODULE	ACTIVITY
01	AI, Machine Learning & GenAI - Fundamentals and Real-Life Applications	■ Compare Outputs: Search Engine vs GenAI (ChatGPT demo) ■ Identify 3 GenAI use cases from your current job role (Excel template) ■ Practice converting a vague prompt into a detailed one ■ Modify 3 prompts to fit different departments ■ AI Opportunity Finder Sheet (Excel)
02	Role-Based Prompt Engineering & Use Cases	■ Create a baggage query assistant ■ Summarize 3 customer complaints with sentiment tagging ■ Create a safety checklist generator prompt ■ Draft flight disruption comms for different scenarios ■ Create 3 travel offers for personas ■ Generate 1 LinkedIn post + email + banner caption ■ Trend summary from public travel blog URLs ■ Draft JD and screen 2 resumes (GenAI-assisted) ■ Summarize IT ticket data into FAQ ■ Summarize a contract paragraph and flag risks

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

✉ info@koenig-solutions.com