

Al Certification Program

# Alt Prompt Engineer TM

Command Prompt  $\triangle$ Examples Limitations \*Explain quantum computing in Remembers what user said May occasionally generate earlier in the conversation. "Got any creative ideas for a 10 Allows user to provide follow-May occasionally produce year old's birthday?" + up corrections harmful instructions or blased "How do I make an HTTP Trained to decline inappropriate requests. Limited knowledge of world and events after 2021 i systems more natural and sofe to interact with. Your feedback will help us improve.

# **Executive Summary**

The AI+ Prompt Engineer Certification Program introduces learners from diverse backgrounds and levels of expertise to the fundamental principles of artificial intelligence and prompts engineering. Covering the history, concepts, and applications of AI, machine learning, deep learning, neural networks, and natural language processing, the program also delves into best practices for designing effective prompts that harness the capabilities of AI models to their fullest potential. Through a combination of theoretical instruction and practical exercises, including project-based learning sessions, participants acquire the skills needed to create and utilize prompts across various domains and objectives.



Date Issued: 1/10/2024 Version: 1.1

# Certification Prerequisites

- Understand AI basics and how AI is used no technical skills required
- Willingness to think creatively to generate ideas and use Al tools effectively



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# Exam Blueprint

Number of Questions

50

Passing Score

35/50 or 70%

Duration

90 Minutes

Format

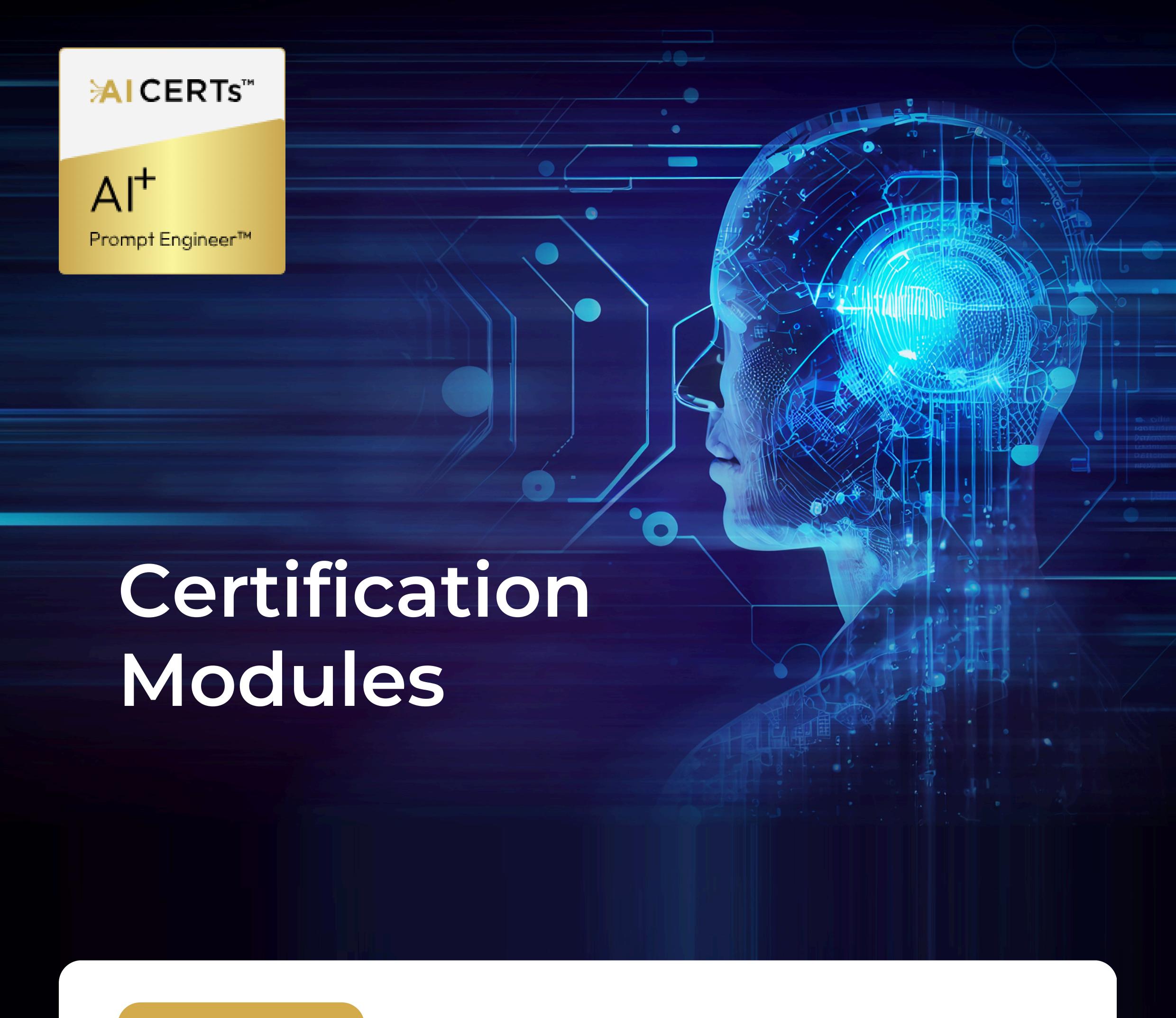
Online via Al
Proctoring platform

Question Type

Multiple Choice/Multiple Response

# Exam Overview

Module	Weight
Foundations of Artificial Intelligence (AI) and Prompt Engineering	10%
Principles of Effective Prompting	15%
Introduction to AI Tools and Models	15%
Mastering Prompt Engineering Techniques	20%
Mastering Image Model Techniques	15%
Project-Based Learning Session	12%
Ethical Considerations and Future of Al	12%
	100%



# Foundations of Artificial Intelligence (AI) and Prompt Engineering

- 1.1 Introduction to Artificial Intelligence
- 1.2 History of Al
- 1.3 Machine Learning Basics

1.4 Deep Learning and Neural Networks1.5 Natural Language Processing (NLP)1.6 Prompt Engineering Fundamentals

#### Module 2

## Principles of Effective Prompting

2.1 Introduction to the Principles of Effective Prompting
2.2 Giving Directions
2.3 Formatting Responses
2.4 Providing Examples
2.5 Evaluating Response Quality
2.6 Dividing Labor
2.7 Applying The Five Principles
2.8 Fixing Failing Prompts

## Introduction to Al Tools and Models

3.1 Understanding AI Tools and Models
3.2 Deep Dive into ChatGPT
3.3 Exploring GPT-4
3.4 Revolutionizing Art with DALL-E 2
3.5 Introduction to Emerging Tools using GPT
3.6 Specialized AI Models
3.7 Advanced AI Models
3.8 Google Al Innovations
3.9 Comparative Analysis of AI Tools
3.10 Practical Application Scenarios
3.11 Harnessing Al's Potential

# Mastering Prompt Engineering Techniques

4.1 Zero-Shot Prompting
4.2 Few-Shot Prompting
4.3 Chain-of-Thought Prompting
4.4 Ensuring Self-Consistency in Al Responses
4.5 Generate Knowledge Prompting
4.6 Prompt Chaining
4.7 Tree of Thoughts: Exploring Multiple Solutions
4.8 Retrieval Augmented Generation
4.9 Graph Prompting and Advanced Data Interpretation
4.10 Application in Practice: Real-Life Scenarios
4.11 Practical Exercises

# Mastering Image Model Techniques

5.1 Introduction to Image Models
5.2 Understanding Image Generation
5.3 Style Modifiers and Quality Boosters in Image Generation
5.4 Advanced Prompt Engineering in Al Image Generation
5.5 Prompt Rewriting for Image Models
5.6 Image Modification Techniques: Inpainting and Outpainting
5.7 Realistic Image Generation
5.8 Realistic Models and Consistent Characters
5.9 Practical Application of Image Model Techniques

## Project-Based Learning Session

6.1 Introduction to Project-Based Learning in Al
6.2 Selecting a Project Theme
6.3 Project Planning and Design in Al
6.4 Al Implementation and Prompt Engineering
6.5 Integrating Text and Image Models
6.6 Evaluation and Integration in Al Projects
6.7 Engaging and Effective Project Presentation
6.8 Guided Project Example

#### Module 7

# **Ethical Considerations and Future** of Al

- 7.1 Introduction to AI Ethics
- 7.2 Bias and Fairness in Al Models

- 7.3 Privacy and Data Security in Al
- 7.4 The Imperative for Transparency in Al Operations
- 7.5 Sustainable AI Development: An Imperative for the Future
- 7.6 Ethical Scenario Analysis in Al: Navigating the Complex Landscape
- 7.7 Navigating the Complex Landscape of Al Regulations and Governance
- 7.8 Navigating the Regulatory Landscape: A Guide for Al Practitioners
- 7.9 Ethical Frameworks and Guidelines in Al Development

# Certification Outcome

Upon successful completion of the AI+ Prompt Engineer Certification Program, learners will demonstrate proficiency in foundational AI concepts, principles of effective prompting, theoretical understanding of AI tools and models, prompt engineering techniques, image model concepts, and ethical considerations in AI. Participants will have acquired practical skills through project-based learning sessions and will be equipped to apply ethical frameworks in AI development. This certification signifies competence in AI prompt engineering and prepares individuals for ethical and innovative contributions to the field.



#### Market Insight

The integration of AI in education is a growing global trend, transforming teaching methodologies and learning experiences. Educational institutions are increasingly adopting AI, recognizing its potential to personalize learning and streamline administrative tasks. This certification places educators at the forefront of this transformation, ensuring they are well-prepared to navigate and contribute to the evolving educational landscape.



#### Value Proposition

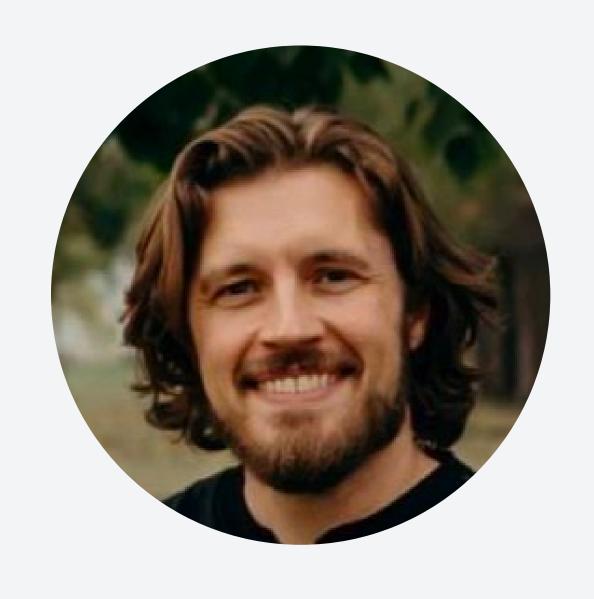
This certification offers educators a unique opportunity to master AI applications in education. It blends theoretical knowledge with practical skills, empowering educators to lead AI-driven educational initiatives. The program is not just about understanding AI – it's about applying it effectively to enrich the educational experience.



#### **Additional Features**

The program is designed with a focus on real-world application, incorporating interactive modules, hands-on tool exploration, and collaborative project work. Educators will engage with current Al technologies, gaining practical experience and insights to apply in their professional roles.

# Al Experts



Jason Kellington

Al Expert

As a consultant, trainer, and technical writer with more than 25 years of experience in IT, I specialize in the development and delivery of solutions focused on effective and efficient enterprise IT.



Justin Frébault

Al Expert

I'm a boutique data consultant specializing in data mesh and lakehouse solutions. I've dedicated my career to helping organizations transform their approach to data, moving beyond mere knowledge.



J Tom Kinser

Al Expert

I have over forty years of experience in software development, data engineering, management, and technical training. I am a Microsoft Certified Trainer and a software developer, holding multiple certifications.



Terumi Laskowsky

Al Expert

Country Manager for Global Consulting Services in Japan, Specialties: Information Security (Compliance, Policy, Application, Host, Network)



#### Contact

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