

Google AI Transformation for Business

Program Description

The **Google AI Transformation for Business** program is a curated learning journey built on Google Cloud's Generative AI courses. It equips professionals and organizations with the knowledge and skills to leverage AI for innovation, productivity, and responsible transformation. Covering foundational concepts, advanced architectures, and practical applications, this program ensures participants can confidently integrate AI into their business workflows and strategies.

Benefits of the Program

- **Comprehensive Foundations:** Learn the essentials of Generative AI, LLMs, and advanced architectures.
- **Practical Application:** Gain hands-on experience with Google Cloud tools like Vertex AI and Gemini.
- **Responsible AI:** Understand Google's AI principles, bias reduction, and governance frameworks.
- **Creativity & Innovation:** Explore image generation, multimodal productivity, and custom AI solutions.
- **Business Integration:** Apply AI across marketing, customer service, research, and operations.
- **Future Readiness:** Stay ahead with cutting-edge models like Transformers and BERT.

Course Outline

This Program consists of 2 parts:

- A. Google Generative AI Essentials
- B. Google Gemini for Everyone

I. Google Generative AI Essentials

1. Introduction to Generative AI Studio

- Define Generative AI
- Prototyping Generative AI Models
- Vertex AI basics
- Prompt design and tuning

2. Introduction to Large Language Models

- LLM architectures and types
- NLP techniques
- Frameworks for LLMs
- Hyperparameter tuning and fine-tuning

3. Introduction to Responsible AI

- Google's 7 AI principles
- Bias in AI systems
- Responsible AI policies and governance

4. Introduction to Image Generation

- Image generation models
- Diffusion models
- Tools and frameworks
- Optimization techniques

5. Encoder-Decoder Architecture

- Encoder-decoder stages
- Probability distributions and loss functions
- Tools and frameworks

6. Attention Mechanism

- Types of attention mechanisms
- Translation models
- Attention networks and weights
- Deep learning frameworks

7. Transformer Models and BERT

- Transformer architecture
- Self-attention mechanism
- Transformer model types
- BERT model and applications

II. Google Gemini for Everyone

- Gemini ecosystem overview
- Responsible AI and privacy best practices
- Prompt engineering techniques
- Multimodal productivity (image, audio, video, research)
- Workspace integration (Docs, Sheets, Gmail)
- Building custom Gems and agentic apps

Total Duration

10 Hours

Learning Format

Online, and on-demand

Target Learners

Business leaders, managers, and professionals

I. Google Generative AI Essentials

Master the foundations of Generative AI with this bundle! Explore LLMs, Responsible AI, Image Generation, Encoder-Decoder models, Attention Mechanisms, and Transformers including BERT. Perfect for beginners ready to dive into AI's most powerful tools.

In Collaboration with

Learning Format
Online and On-demand

In Collaboration with



1. Introduction to Generative AI Studio

In this new time of artificial intelligence, Generative AI has provided people with new creative, innovative ideas and problem-solving. For people who want to upgrade their skills, the Introduction to Generative AI Studio Course powered by Google Cloud has everything that a company demands from its employees.

Program Duration
1 Hour

Learning Format
Online and On-demand

6+ Skills Covered

- Define Generative AI
 - Prototyping Generative AI Models
 - Vertex AI
 - Prompt Design
 - Prompting and its Types
 - Prompt Tuning Fine Tuning and Parameter Tuning
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2. Introduction to Large Language Models

If you want to give your career a transformative boost, then the Large Language Models Course powered by Google cloud is the right choice for you. This Large Language Models course is meticulously designed to introduce you to the foundational concepts, applications, and practical uses of Large Language Models

Program Duration

1 Hour

Learning Format

Online and On-demand

Course Curriculum

Lesson 1: Introduction to Large Language Models

5+ Skills Covered

- LLM Large Language Models Architecture
- LLM Large Language Models Models and Types
- LLM Large Language Models Frameworks
- NLP Natural Language Processing Techniques
- Hyperparameter Tuning Data Augmentation and FineTuning

3. Introduction to Responsible AI

This is a Introduction to Responsible AI Course and practices powered by Google Cloud. The scope and core themes of this Foundation-level course include Google's 7 AI principles, bias reduction, and privacy. This covers the frameworks of responsible AI policies and governance models.

Program Duration
1 Hour

Learning Format
Online and On-demand

Course Curriculum

Lesson 1: Introduction to Responsible AI

4+ Skills Covered

- Responsible AI Principles
- AI Frameworks
- Bias in AI Systems
- Responsible AI Policies and Governance Frameworks

4. Introduction to Image Generation

Picture production or image generation - this career field is currently at its peak. Many individuals aspire to learn image generation and brush their skills to excel. The Introduction to Image Generation Course powered by Google Cloud will take you on an engaging voyage into the worlds of creativity and artificial intelligence.

Program Duration
1 Hour

Learning Format
Online and On-demand

Course Curriculum

Lesson 1 : Introduction to Image Generation

4+ Skills Covered

- Image Generation Models
- Diffusion Model and its Types
- Image Generation Tools and Frameworks
- Probability Distributions Loss Functions and Optimization Techniques

5. Encoder-Decoder Architecture

If you want to give your career a transformative boost, then the Large Language Models Course powered by Google cloud is the right choice for you. This Large Language Models course is meticulously designed to introduce you to the foundational concepts, applications, and practical uses of Large Language Models

Program Duration
1 Hour

Learning Format
Online and On-demand

Course Curriculum

Lesson 1 : Encoder-Decoder Architecture

4+ Skills Covered

- EncoderDecoder Architecture
- Stages of EncoderDecoder Architecture
- Probability Distributions Loss Functions and Optimization Techniques
- EncoderDecoder Tools and Frameworks

6. Attention Mechanism

Unravel the intricacies of Attention Mechanism, understanding its pivotal role in various models and applications. Through a series of engaging modules, grasp the fundamental concepts, delve into advanced techniques, and witness real-world examples at work through this Attention Mechanism Course powered by Google Cloud.

Program Duration
1 Hour

Learning Format
Online and On-demand

Course Curriculum

Lesson 1 : Attention Mechanism

5+ Skills Covered

- Types of Attention Mechanisms
- Translation Model
- Attention Network
- Attention Weights
- Deep Learning Frameworks

7. Transformer Models and BERT Model

Explore the revolutionary world of transformer models and delve into the concepts of the BERT model in this comprehensive Transformer Models and BERT Model Course powered by Google Cloud. Dive into the fundamental concepts of transformer architectures, exploring attention mechanisms, neural networks and transformer models

Program Duration
1 Hour

Learning Format
Online and On-demand

Course Curriculum

Lesson 1 : Transformer Models and BERT Models

5+ Skills Covered

- Transformer Architecture
- Encoder Decoder Architecture
- Self Attention Mechanism
- Transformer Model Types
- BERT Model and its Types

II. Google Gemini for Everyone

Discover how to use Google Gemini to boost productivity, create multimodal content, and streamline research. Learn prompt engineering techniques, explore Workspace integrations, build custom Gems, and apply responsible AI practices to confidently use Gemini across personal and professional workflows.

Program Duration
3 Hours

Learning Format
Online and On-demand

Course Curriculum

Lesson 01: Course Introduction

Lesson 02: Learning Objectives

Lesson 03: The Gemini Ecosystem

- 3.01 Google's AI Journey: Key Milestones
- 3.02 Gemini Tier Differences
- 3.03 Google's AI Ecosystem Overview
- 3.04 Responsible AI and Privacy Best Practices
- 3.05 Demo: Tour of Gemini Studio and Tools - Part 1
- 3.06 Demo: Tour of Gemini Studio and Tools - Part 2
- 3.07 Demo: Tour of Gemini Studio and Tools - Part 3

Lesson 04: Mastering Prompt Engineering

- 4.01 Mastering Prompt Engineering
- 4.02 The Four Pillars of Effective Prompting
- 4.03 Prompt Engineering Techniques and Gemini Across Workspace Tools
- 4.04 Demo: Creating a Simple Prompt
- 4.05 Demo: Refining Prompts by Applying Context-Task Constraint Framework

Lesson 05: Multimodal Productivity

- 5.01 Understanding and Applying Native Multimodal AI for Productivity
- 5.02 Image, Audio, and Video Creation Tools
- 5.03 Deep Research and Document Analysis
- 5.04 Real-Time Support with Gemini Live
- 5.05 Demo: The Research-to-Podcast Pipeline – Part 1
- 5.06 Demo: The Research-to-Podcast Pipeline – Part 2
- 5.07 Demo: Multimodal Brainstorming

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Lesson 06: Workspace and Advanced Integration

6.01 NotebookLM: The Grounded Expert

6.02 Creating Custom Gems with Workspace Integration and Google AI Labs

6.03 Demo: Workspace Workflow - Using Gemini in Google Docs, Sheets, and Gmail

6.04 Demo: Building a Gem

6.05 Demo: Building an Agentic App with Antigravity

Lesson 07: Key Takeaways

5+ Skills Covered

Prompt Engineering

Multimodal Content Creation

AI Research Workflows

Workspace AI Integration

Responsible AI Practices