

Name of the employee: **Dr. Ishaan Tamhankar**
Mr. Vandan Solanki

College: **Vimal Tormal Poddar BCA College, Pandesara**

Duration of this Course: **30 Hours**

Course Category: **Skill Enhancement Course**

Course Credit: **02**

Course Name: ChatGPT and AI Tools	
Eligibility	Candidates must have passed standard 12th (H.S.C.) Examination.
Purpose of Course	<p>Understanding AI Basics: Provides a foundational understanding of artificial intelligence, its principles, and applications in various fields. Practical Applications: Offers hands-on experience with tools like Chat GPT, allowing students to explore real-world applications and gain practical skills.</p> <p>Enhanced Problem-Solving Skills: Develops problem-solving skills by addressing challenges related to AI development, natural language understanding, and conversational interfaces.</p> <p>Innovation and Creativity: Encourages innovation and creativity by exposing students to cutting-edge technologies and tools, inspiring them to develop new solutions and applications.</p>
Objective of the Program	<ul style="list-style-type: none">• Gain a solid understanding of the fundamental concepts and principles of artificial intelligence.• Provide practical, hands-on experience with Chat GPT and other AI tools to build proficiency in using these technologies.• Develop problem-solving skills and- critical thinking abilities by addressing challenges related to AI development and natural language understanding.
Program Outcome	<ul style="list-style-type: none">• Students should demonstrate a solid understanding of the fundamental concepts and principles of artificial intelligence.• Demonstrate the ability to apply critical thinking and problem-solving skills to address challenges related to AI development and natural language understanding.

Unit-1 ChatGPT

3 Lecture

1.1 Foundations of ChatGPT and Language Models

- Introduction to ChatGPT and its place in conversational AI.
- Understanding language models, NLP tasks, and the GPT architecture.

1.2 Implementation and Advanced Features of ChatGPT

- Hands-on experience building and fine-tuning ChatGPT.
- Exploring advanced features such as multi-turn conversations and conditional generation.

1.3 Ethical Considerations, Applications, and Capstone Project

- Addressing ethical challenges in conversational AI.
- Real-world applications and case studies of ChatGPT.
- Capstone project: Developing an advanced ChatGPT application and presentations.

Unit- 2 BARD

3 Lecture

2.1 Introduction to Bard and Generative Writing

- Overview of OpenAI's Bard and its role in generative writing.
- Understanding the underlying architecture and capabilities of Bard.

2.2. Application and Creative Writing Projects

- Hands-on exploration of Bard for creative writing tasks.
- Capstone projects: Developing and presenting original pieces using Bard's generative capabilities.

Unit – 3 DebugCode.ai

3 Lecture

3.1. Master the Art of Debugging:

- Identify and fix errors efficiently: Leverage DebugCode.ai's advanced AI to pinpoint bugs in your code quickly and accurately, saving you valuable time and effort.
- Gain deeper insight into your code: Analyze complex code structures and understand the flow of your program with DebugCode.ai's intuitive visualization tools, eliminating guesswork and streamlining your debugging process.

3.2. Elevate Your Coding Skills:

- Learn from your mistakes: Receive actionable feedback and suggestions from DebugCode.ai, helping you understand the root cause of errors and improve your coding practices for future projects.
- Become a better problem solver: DebugCode.ai's interactive environment fosters a deeper understanding of coding concepts and problem-solving techniques, equipping you to tackle even the most challenging coding challenges.

Unit-4 Yoodli

3 Lecture

4.1 Improve public speaking:

- Analyze speeches and give feedback on pace, fillers, conciseness, and inclusivity.
- Provide real-time nudges during online meetings to stay on track and sound confident.

4.2 Master communication skills:

- Offer exercises and templates for various scenarios like interviews, crucial conversations, and elevator pitches.
- Track progress over time with a personalized dashboard and compare it to benchmarks.

Unit-5 Gamma.app

3 Lecture

5.1. Personalized learning:

- AI-powered recommendations: gamma.app uses AI to recommend learning materials based on your individual interests, skills, and learning pace.
- Adaptive learning paths: The platform adapts to your progress and adjusts your learning path accordingly, ensuring you're always challenged and engaged.

5.2. Immersive learning experiences:

- Interactive exercises: gamma.app offers a variety of interactive exercises, including quizzes, games, and simulations, to make learning more engaging and effective.
- Real-world applications: The platform connects you with real-world projects and challenges, so you can apply what you've learned to solve actual problems.

Unit-6 Merlin AI

3 Lecture

6.1. Master AI-powered conversations:

- Engage in natural and informative dialogues with Merlin AI, exploring diverse topics and learning through interactive exchanges.
- Utilize Merlin's advanced capabilities to answer your questions comprehensively, even if they are open-ended, challenging, or unusual.

6.2. Unlock your creative potential:

- Unleash your imagination and craft captivating stories with Merlin AI's assistance.
- Generate unique and engaging narratives with Merlin's guidance, allowing you to tap into your creative flow.

Unit-7 PlaygroundAI

3 Lecture

7.1. Unleash Your Creative Vision:

- Effortlessly generate AI-powered art: Explore a diverse range of artistic styles and techniques, from realistic portraits to abstract landscapes, with PlaygroundAI's intuitive interface.
- Tailor your creations to your needs: Design social media posts, presentations, posters, videos, logos, and more, bringing your ideas to life with stunning visual impact.

7.2. Accelerate Your Design Workflow:

- Simplify complex tasks: Generate multiple variations of your design concept in seconds, allowing for rapid iteration and exploration of possibilities.
- Boost your productivity: Free yourself from repetitive tasks like generating mockups and backgrounds, focusing on the creative aspects of your design process.

Unit-8 Formula.dog

3 Lecture

8.1. Master Mathematical Concepts:

- Learn with interactive exercises: Formula.dog provides engaging and interactive exercises that go beyond passive learning. Practice and apply your knowledge through fun challenges and quizzes, solidifying your understanding of mathematical concepts.
- Explore diverse topics: Dive deep into various areas of mathematics, from algebra and geometry to calculus and statistics. Formula.dog offers a comprehensive curriculum that caters to different learning styles and interests.

8.2. Visualize and Understand:

- Gain visual clarity: Formula.dog utilizes dynamic visualizations and animations to illustrate complex concepts. This visual approach helps you grasp abstract mathematical ideas and retain information effectively.
- Build intuition: Develop a strong intuition for mathematical relationships through interactive simulations and real-world applications. Formula.dog helps you connect theoretical concepts to practical problems, solidifying your understanding and boosting problem-solving skills.

Unit – 9

6 Lecture

9.1 Introduction to AI and Machine Learning

- Overview:
 - Definition and scope of Artificial Intelligence.
 - Distinction between narrow AI and general AI.
 - Applications of AI in real-world scenarios.
- Machine Learning Fundamentals:
 - Understanding supervised, unsupervised, and reinforcement learning.
 - Key concepts: features, labels, training, and testing data.