**Course Instructor: Dr Chiranjib Sur**

**Course Webpage:** https://chiranjibsuruf.github.io/courses/da624.html

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**Objectives:** LLMs have transformed how machines understand and generate language, this course teaches the core methods to build systems that can read, write, search, and reason with text at scale. It equips you with modern NLP skills (prompting, fine-tuning, RAG, evaluation, safety) that are now central to industry and research.

**Prerequisites:** Machine Learning, Deep Learning, Data Mining.

**Course Code: DA624**

**Course Name: NLP with Large Language Models**

**Credits: 3-0-0-6**

**Syllabus:** History of evolving NLP problems, natural language processing: Words, Syntactic Parsing, Dependency Parsing; n-gram Language Model; natural language understanding language generation, Neural models basics: Recurrent Neural Network, Attention and Transformer; Neural Language Models, Different formulations: Encoder only, Encoder-decoder, Decoder only; training and fine-tuning Large Language Models: BERT, RoBERTa; ChatGPT; LLama; Prompt Engineering; Case studies and future challenge.

**Textbooks:**

- To be updated.

**References:**

- To be updated.