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| **Module Name** | **Topics** | **Duration( in Hour)** |
| Introduction | MLOPS - Introduction to Concepts | 0.75 |
| Machine Learning Paradigm - Industry Standard Architecture walk through | 0.5 |
| Containerisation Basics with Docker | 1 |
| Mlops Lifecycle | 0.5 |
| Kubernetes Basics and Operations | 1 |
| Image Deployment on Kubenetes | 1 |
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| AI/ML Frameworks in Kubeflow | Introduction to Kubeflow | 0.5 |
| Kubeflow and its role in ML Development Life Cycle | 0.5 |
| Installation and Configuration of Kubelfow( One Cloud/ One On Prem) | 2 |
| Overview of Kubeflow components and features | 0.5 |
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| Kubeflow components - Pipelines | Kubeflow Pipelines Introduction | 0.5 |
| Kuebflow Pipelines UI Walkthrough | 0.25 |
| A pipeline execution scheduling engine | 0.5 |
| Python SDK for managing these pipelines | 0.5 |
| Leveraging Jupyter Notebooks for using the Python SDK | 0.75 |
| Building a TensorFlow pipeline through a Use Case | 0.25 |
| Building a PyTorch pipeline through a Use Case | 0.25 |
| Deploying Pipelines & Examining Output Running Experiments | 1 |
| Scheduling Pipelines | 0.25 |
| Automation of Pipeline Creation with KALE | 0.5 |
| KFP SDK | 0.5 |
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| Kubeflow components - Jupyter Notebooks | Setting up a Jupyter Server - CPU/GPU | 0.5 |
| Frameworks for training - TensorFlow, PyTorch | 0.5 |
| Juppyter Notebooks - Data Ingestion ( Cloud Storage, On Prem Path, Database etc) | 0.5 |
| upyter Notebooks - Feature Engineering, Feature Store Introductio | 0.5 |
| Jupyter Notebooks - Training, Testing, Visualisation etc | 0.5 |
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| Kubeflow Components - Katib (Hyperparameter Tuning) | Katib Hyper param tuning Pytorch | 0.5 |
| Katib Hyper param tuning Tensorflow | 0.5 |
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| Kubeflow Components - Experimentation | Pipeline Runs | 0.5 |
| Experimentation & Versioning of Models | 0.25 |
| Model Tuning walk-through | 0.25 |
| Re-training Model | 0.25 |
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| Model Serving | KFServing in Kubeflow | 1.5 |
| Tensorflow Serving in Kubeflow (Optional) |
| Model Serving and deployment for inferencing through MLOps Pipeline taking a Use case. |
| Orchestration |
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| Model Deployment | Custom Model Deployment using Docker Images | 1 |
| CI/CD in Kubeflow |
| Kuebflow autosclaed managed Clusters |
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| Monitoring & Operations on Kubeflow Clusters | Exporting and visualizing pipeline metrics ( Pipeline Monitoring) | 1.5 |
| Model Montiroing Metrics & Visualisation |
| Model Decay and Analysis |
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|  | **Total Hours** | **22.5** |