

IIT Roorkee PGCP DSML - Batch 8						
Module	Module Name	Session Title	Date	Day	Time	Faculty
		Orientation Session	03-Feb-24	Saturday	9:00AM-11:00AM	
		Session Break	04-Feb-24	Sunday		
1	Foundations of Data Science (and Generative AI)	Session 1	10-Feb-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
	Career Services Orientation		11-Feb-24	Sunday	9:00AM-10:00AM	Riya Shah & Navin Wadhwani
2	Python for Data Science	Introduction to Python	17-Feb-24	Saturday	9:00AM-11:00AM	Prof. Millie Pant
		Data Structures(1)	18-Feb-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Data Structures(2)	24-Feb-24	Saturday	9:00AM-11:00AM	Prof. Millie Pant
		Conditional statements, loops and functions (1)	25-Feb-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Conditional statements, loops and functions (2)	02-Mar-24	Saturday	9:00AM-11:00AM	Prof. Millie Pant
		Numpy	03-Mar-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Extra Session - Pandas and Matplot Lab	09-Mar-24	Saturday	9:00AM-11:00AM	9:00AM-11:00AM
	Career Session (Personal Branding -1)		10-Mar-24	Sunday	9:00AM-10:00AM	Riya Shah
3	Exploratory Data Analysis and Data Visualization	Data Extraction-1	16-Mar-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Data Extraction-2	17-Mar-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Regular Expressions-1	23-Mar-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Session Break/ Holika Dahan	24-Mar-24	Sunday		
		Regular Expressions-2	30-Mar-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		RDBMS and SQL - 1	31-Mar-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		RDBMS and SQL - 2	06-Apr-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Visualization using Tableau-1	07-Apr-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Visualization using Tableau-2	13-Apr-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
	Career Session (Personal Branding -2)		14-Apr-24	Sunday	9:00AM-10:00AM	Riya Shah
4	Machine Learning	ML Project cycle and Naive Bayes Classifier with Hands-on	20-Apr-24	Saturday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Session Break/Mahavir Jayanti	21-Apr-24	Sunday		
		Regression Analysis	27-Apr-24	Saturday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Logistic regression; Softmax regression; One hot encoding	28-Apr-24	Sunday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		SVM and KNN Classifiers	04-May-24	Saturday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Clustering Approaches	05-May-24	Sunday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Decision Trees	11-May-24	Saturday	3:00PM-05:00PM	Prof. Sanjeev Kumar Malik
	Career Session (Business Communication -1)		12-May-24	Sunday	9:00AM-10:00AM	Riya Shah
5	Advanced Machine Learning	Ensemble Learning: Bagging and Boosting Models-I	18-May-24	Saturday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Ensemble Learning: Bagging and Boosting Models-II	19-May-24	Sunday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Linear & Nonlinear Dimensional Reduction Techniques: Manifold Learning	25-May-24	Saturday	9:00AM-11:00AM	Prof. Sanjeev Kumar Malik
		Session Break	26-May-24	Sunday		
		Session Break	01-Jun-24	Saturday		
		Statistical/Probabilistic and Density Methods for Clustering	02-Jun-24	Sunday	10:00AM-12:00PM	Prof. Sanjeev Kumar Malik
		Session Break	08-Jun-24	Saturday		
6	Text Analytics	Text Analytics Basics, Introduction and Overview	09-Jun-24	Sunday	9:00AM-11:00AM	Prof. Sumit Kumar Yadav
		Text Pre-processing, Frequency Based Analysis	15-Jun-24	Saturday	9:00AM-11:00AM	Prof. Sumit Kumar Yadav
		Converting Text to Numbers, Building ML models from text data	16-Jun-24	Sunday	9:00AM-11:00AM	Prof. Sumit Kumar Yadav
		n-gram models, Evaluating Language Models	22-Jun-24	Saturday	9:00AM-11:00AM	Prof. Sumit Kumar Yadav
		Word2Vec, applications of deep models to text data	23-Jun-24	Sunday	9:00AM-11:00AM	Prof. Sumit Kumar Yadav
5	Advanced Machine Learning	Gaussian Mixture Models for Clustering and Data Generation	23-Jun-24	Sunday	12:00PM-02:00PM	Prof. Sanjeev Kumar Malik
	Career Session (Business Communication -2)		29-Jun-24	Saturday	9:00AM-10:00AM	Career Coach
3	Exploratory Data Analysis and Data Visualization	Introduction to Tableau	29-Jun-24	Saturday	12:00PM-02:00PM	Prof. Alok Bhardwaj
		Session Break	30-Jun-24	Sunday		
	Hackathon	Day 1	06-Jul-24	Saturday		TimesPro
		Day 2	07-Jul-24	Sunday		TimesPro

7	Neural Networks & Deep Learning	Introduction to ANN	13-Jul-24	Saturday	9:00AM-11:00AM	Prof. Millie Pant
		ANN through Scikitlearn	14-Jul-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Introduction to Keras and Tensorflow	20-Jul-24	Saturday	9:00AM-11:00AM	Prof. Millie Pant
		Sequential and Functional models	21-Jul-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Specialization Introduction	24-Jul-24	Wednesday	8:00PM-9:00PM	TimesPro
		Session Break	27-Jul-24	Saturday		
		Improving the performance of neural networks	28-Jul-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Session Break	03-Aug-24	Saturday		
		More on tensorflow and keras	04-Aug-24	Sunday	9:00AM-11:00AM	Prof. Millie Pant
		Tensorflow programming-1	04-Aug-24	Sunday	12:00PM-01:00PM	Prof. Millie Pant
		Hackathon - Code Walkthrough	07-Aug-24	Wednesday	7:30PM-08:30PM	TimesPro
		Hackathon - Code Walkthrough	08-Aug-24	Thursday	7:30PM-08:30PM	TimesPro
		Tensorflow programming -2	10-Aug-24	Saturday	9:00AM-11:00AM	Prof. Millie Pant
	Career Session (Job search Strategy - 1)		11-Aug-24	Sunday	9:00AM-10:00AM	Samriti Mahajan
	Capstone Introduction		13-Aug-24	Tuesday	8:00PM-08:30PM	TimesPro
3	Exploratory Data Analysis and Data Visualization	RDBMS and SQL	17-Aug-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
	Career Services (Industry Expert Session)		18-Aug-24	Sunday	9:00AM-11:00AM	Anirban Paul

Specialization 1 - Deep Learning with Image and Speech						
		Session Break (Only for Specialization 1 : Deep Learning Learners)	24-Aug-24	Saturday		
		Session Break (Only for Specialization 1 : Deep Learning Learners)	25-Aug-24	Sunday		
8	Specialisation 1 - Deep Learning with Image and Speech	Image : Introduction to Computer Vision, Open CV, CNN	31-Aug-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Image : Basics of CNN	01-Sep-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Session Break/Ganesh Chaturthi	07-Sep-24	Saturday		
		Image : Introduction and Hands-On on Popular CNN Architectures	08-Sep-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Image : Basics of Computer Vision and Object Detection	14-Sep-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Image : Popular Object Detection Architectures	15-Sep-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Image : Autoencoders, Generative Adversarial Networks (GANs)	21-Sep-24	Saturday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Image : Advanced Image Vision Problems	22-Sep-24	Sunday	9:00AM-11:00AM	Prof. Alok Bhardwaj
		Speech :	28-Sep-24	Saturday	9:00AM-11:00AM	Sagar Dawda
		Speech :	29-Sep-24	Sunday	9:00AM-11:00AM	Sagar Dawda
		Speech :	05-Oct-24	Saturday	9:00AM-11:00AM	Sagar Dawda
	Career Session (Job search Strategy - 2)		06-Oct-24	Sunday	9:00AM-11:00AM	Samriti mahajan
		Session Break/Dussehra	12-Oct-24	Saturday		
8	Specialisation 1 - Deep Learning with Image and Speech	Speech :	13-Oct-24	Sunday	9:00AM-11:00AM	Sagar Dawda
		Speech :	19-Oct-24	Saturday	9:00AM-11:00AM	Sagar Dawda

Specialisation 2 - Data Engineering						
8	Specialisation 2 - Data Engineering	Into to Big Data and HDFS	24-Aug-24	Saturday	9:00AM-11:00AM	Punitkumar Harsur
		Mapreduce & Hive	25-Aug-24	Sunday	9:00AM-11:00AM	Punitkumar Harsur
		Apache Spark Higher API - Pyspark	31-Aug-24	Saturday	9:00AM-11:00AM	Punitkumar Harsur
		Apache Spark Higher API - Core	01-Sep-24	Sunday	9:00AM-11:00AM	Punitkumar Harsur
		Session Break/Ganesh Chaturthi	07-Sep-24	Saturday		
		Apache Spark Higher API - Data Frame and SQL	08-Sep-24	Sunday	9:00AM-11:00AM	Punitkumar Harsur
		Apache Spark ML	14-Sep-24	Saturday	9:00AM-11:00AM	Punitkumar Harsur
		Session Break	15-Sep-24	Sunday		
		Apache Spark ML -2	21-Sep-24	Saturday	9:00AM-11:00AM	Punitkumar Harsur
		Overview of Data engineering tools	22-Sep-24	Sunday	9:00AM-11:00AM	Oaindrila Das

8	Specialisation 2 - Data Engineering	Cloud computing with AWS	28-Sep-24	Saturday	9:00AM-11:00AM	Oaindrila Das
		noSQL databases	29-Sep-24	Sunday	9:00AM-11:00AM	Oaindrila Das
		Basics of MongoDB	05-Oct-24	Saturday	9:00AM-11:00AM	Oaindrila Das
	Career Session (Job search Strategy - 2)		06-Oct-24	Sunday	9:00AM-10:00AM	Samriti Mahajan
		Session Break/Dussehra	12-Oct-24	Saturday		
	Specialisation 2 - Data Engineering	Case Study	13-Oct-24	Sunday	9:00AM-11:00AM	Punitkumar Harsur
	Capstone Project Preparation		19-Oct-24	Saturday		

Common to both Specialization Learners						
	Campus Immersion Travel		20-Oct-24	Sunday		
	Campus Immersion	Day 1	21-Oct-24	Monday		
		Day 2	22-Oct-24	Tuesday		
		Day 3	23-Oct-24	Wednesday		
		Day 4	24-Oct-24	Thursday		
		Day 5	25-Oct-24	Friday		
	Campus Immersion Travel		26-Oct-24	Saturday		
			27-Oct-24	Sunday		
		Session Break/Diwali	02-Nov-24	Saturday		
	Capstone Project Preparation		03-Nov-24	Sunday		
	Career Session (Interview Preparation - 1)		09-Nov-24	Sunday	9:00AM-11:00AM	Samriti Mahajan
			10-Nov-24	Saturday		
			16-Nov-24	Saturday		
			17-Nov-24	Sunday		
	Capstone Submission		20-Nov-24	Wednesday		