

Artificial Intelligence Program

2nd edition

Course Contents	Duration	Days	Professor	Schedule	
Chapter 1. Introduction to Artificial Intelligence	3	1			
Unit 1. The Concept of Artificial Intelligence			Aneesh	13-Jan	Afternoon : 2 PM - 5 PM
Unit 2. Applications of Artificial Intelligence					
Unit 3. Trends in Artificial Intelligence					
Unit 4. Course Roadmap					
Chapter 2. Python Programming	21	7			
- Unit 1. Python I	3		Tahereh	14-Jan	Afternoon : 2 PM - 5 PM
- Unit 2. Python II	4		Tahereh	17-Jan	Afternoon : 2 PM - 5 PM
- Unit 3. Python III	3		Tahereh	18-Jan	Afternoon : 2 PM - 5 PM
- Unit 4. Python IV	3.5		Tahereh	19-Jan	Afternoon : 2 PM - 5 PM
- Unit 5. Python V	5		Tahereh	20-Jan	Afternoon : 2 PM - 5 PM
- Quiz	2.5		Tahereh	21-Jan	Afternoon : 2 PM - 5 PM
			Tahereh	24-Jan	Afternoon : 2 PM - 5 PM
Chapter 3. Python Libraries	18	6			
- Unit 1. NumPy Package	4.5		David	25-Jan	Afternoon : 2 PM - 5 PM
- Unit 2. Pandas Package	6.5		David	26-Jan	Afternoon : 2 PM - 5 PM
- Unit 3. Visualization	4.5		David	27-Jan	Afternoon : 2 PM - 5 PM
- Quiz	2.5		Stefan	28-Jan	Evening: 5 PM - 8 PM
			Stefan	31-Jan	Evening: 5 PM - 8 PM
			Stefan	01-Feb	Evening: 5 PM - 8 PM
Chapter 4. Probability and Statistics	18	6			
- Unit 1. Understanding of Probability	2.5		David	02-Feb	Afternoon : 2 PM - 5 PM
- Unit 2. Understanding of Statistics I	2.5		David	03-Feb	Afternoon : 2 PM - 5 PM
- Unit 3. Understanding of Statistics II	4		David	04-Feb	Afternoon : 2 PM - 5 PM
- Unit 4. Statistical Hypothesis Testing	5		David	07-Feb	Afternoon : 2 PM - 5 PM
- Quiz	4		David	08-Feb	Afternoon : 2 PM - 5 PM
			David	09-Feb	Afternoon : 2 PM - 5 PM
Chapter 5. Machine Learning – Part I	15	5			
- Unit 1. Data Preprocessing	1.5		David	10-Feb	Afternoon : 2 PM - 5 PM
- Unit 2. Unsupervised Learning	4.5		David	11-Feb	Afternoon : 2 PM - 5 PM
- Unit 3. Regression	6		David	14-Feb	Afternoon : 2 PM - 5 PM
- Quiz	3		David	15-Feb	Afternoon : 2 PM - 5 PM
			David	16-Feb	Afternoon : 2 PM - 5 PM
Chapter 6. Machine Learning – Part II	15	5			
- Unit 4. Classification Prediction (Basic)	5		David	17-Feb	Afternoon : 2 PM - 5 PM
- Unit 5. Classification Prediction (Advanced)	5		David	18-Feb	Afternoon : 2 PM - 5 PM
- Quiz	5		David	21-Feb	Afternoon : 2 PM - 5 PM
			David	22-Feb	Afternoon : 2 PM - 5 PM
			David	23-Feb	Afternoon : 2 PM - 5 PM
Chapter 7. Starting an AI Project	3	1			
- Project Preparation	0.5		Aneesh	24-Feb	Afternoon : 2 PM - 5 PM
- Design Thinking	2.5				
Chapter 8. Machine Learning – Part III	18	6			
- Unit 6. Natural Language Processing	12		Stefan	25-Feb	Evening: 5 PM - 8 PM
- Unit 7. Image Processing	4.5		Stefan	02-Mar	Evening: 5 PM - 8 PM
- Quiz	1.5		Stefan	03-Mar	Evening: 5 PM - 8 PM
			Stefan	04-Mar	Evening: 5 PM - 8 PM
			Stefan	07-Mar	Evening: 5 PM - 8 PM
			Stefan	08-Mar	Evening: 5 PM - 8 PM
Chapter 9. Deep Learning – Part I	15	5			
- Unit 1. Introduction to Deep Learning	7.5		Stefan	09-Mar	Evening: 5 PM - 8 PM
- Unit 2. Deep Learning Various Topics	5.5		Stefan	10-Mar	Evening: 5 PM - 8 PM
- Quiz	2		Stefan	11-Mar	Evening: 5 PM - 8 PM
			Stefan	14-Mar	Evening: 5 PM - 8 PM
			Stefan	15-Mar	Evening: 5 PM - 8 PM
Chapter 10. Deep Learning – Part II	12	4			
- Unit 3. Deep Learning with Keras	10		Stefan	16-Mar	Evening: 5 PM - 8 PM
- Quiz	2		Stefan	17-Mar	Evening: 5 PM - 8 PM
			Stefan	18-Mar	Evening: 5 PM - 8 PM
			Stefan	21-Mar	Evening: 5 PM - 8 PM
Chapter 11. AI Capstone Project Tutorial	2	1			
- Using a Ready-Made CNN Model.	1		Stefan	22-Mar	Evening: 5 PM - 8 PM
- AI Application Cases.	1				
During the capstone project, student's project activities take more time than lecture itself. Please expect up to 80 hours to complete the whole project	75				
Final Present				29-Apr	Afternoon : 2 PM - 5 PM
Total	140	47			
	215				