

Date		Unit	Lesson Title	Start	End	Mode of Delivery						
C1: FOUNDATIONS OF DATA SCIENCE: PYTHON AND SQL			Key Topics: Week 1: Intro to Data Science and Databases Week 2: SQL Basics Week 3: SQL Advanced, Intro to Numpy Week 4: Intro to Pandas, EDA Basics Week 5: EDA Advanced, Data Visualization	Start	End	Mode of Delivery						
			FRI				2 May-25		Welcome + Introduction	10:00	13:00	NTU
			SAT				3 May-25					
			SUN				4 May-25					
			MON				5 May-25	1.1	Intro to Data Science	10:00	13:00	NTU
MON	5 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
TUE	6 May-25	1.2	Introduction to Database	10:00	13:00	NTU						
TUE	6 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
WED	7 May-25	1.3	SQL Basic - DDL	10:00	13:00	NTU						
WED	7 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
THU	8 May-25	CW	Career Workshop #1 - Uncover Your Next Path: Career Discovery for Mid-Career Changers	10:00	13:00	NTU						
THU	8 May-25	CO	Coaching	14:00	17:00	NTU						
FRI	9 May-25		Assignment + Quiz + Self Study	10:00	13:00	Self Study						
SAT	10 May-25											
SUN	11 May-25											
MON	12 May-25	PH	Vesak Day									
TUE	13 May-25	1.4	SQL Basic - DML	10:00	13:00	NTU						
TUE	13 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
WED	14 May-25	1.5	SQL Advanced	10:00	13:00	NTU						
WED	14 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
THU	15 May-25	1.6	Introduction to Numpy	10:00	13:00	NTU						
THU	15 May-25	CO	Coaching	14:00	17:00	NTU						
FRI	16 May-25	1.7	Introduction to Pandas	10:00	13:00	NTU						
FRI	16 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
SAT	17 May-25											
SUN	18 May-25											
MON	19 May-25	1.8	Exploratory Data Analysis (EDA) Basic	10:00	13:00	NTU						
MON	19 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
TUE	20 May-25	CO	Coaching	10:00	13:00	NTU						
TUE	20 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
WED	21 May-25	1.9	EDA Advanced	10:00	13:00	NTU						
WED	21 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
THU	22 May-25	1.10	Data Visualization	10:00	13:00	NTU						
THU	22 May-25	CO	Coaching	14:00	17:00	NTU						
FRI	23 May-25		Assignment + Module Quiz + Self Study	10:00	13:00	Self Study						
SAT	24 May-25											
SUN	25 May-25											
C2: SCALABLE DATA SOLUTIONS: BIG DATA ENGINEERING ESSENTIALS			Key Topics: Week 1: Introduction Big Data, Data Engineering and Data Architecture Week 2: Data Encoding, Data Flow, Data Extraction and Web Scraping Week 3: Data Warehouse, Data Pipelines and Orchestration Week 4: Data Orchestration and Testing, Memory Processing Week 5: Data Transformation, Stream Processing and Analytics Week 6: Project creation	Start	End	Mode of Delivery						
			MON				26 May-25	2.1	Introduction to Big Data and Data Engineering	10:00	13:00	NTU
			MON				26 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
			TUE				27 May-25	2.2	Data Architecture	10:00	13:00	NTU
			TUE				27 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
WED	28 May-25	2.3	Data Encoding and Data Flow	10:00	13:00	NTU						
WED	28 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						
THU	29 May-25	2.4	Data Extraction and Web Scraping	10:00	13:00	NTU						
THU	29 May-25	CO	Coaching	14:00	17:00	NTU						
FRI	30 May-25	CW	Career Workshop #2 - Stand Out: Building a Powerful Professional Brand	10:00	13:00	NTU						
FRI	30 May-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study						

Schedule for (SCTP) Advanced Professional Certificate in Data Science and Artificial Intelligence - Cohort 1 (Full Time)

Updated: 7 Feb 25

	Date	Unit	Lesson Title	Start	End	Mode of Delivery
SAT	31 May-25					
SUN	1 Jun-25					
MON	2 Jun-25	2.5	Data Warehouse	10:00	13:00	NTU
MON	2 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
TUE	3 Jun-25	CO	Coaching	10:00	13:00	NTU
TUE	3 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
WED	4 Jun-25	2.6	Data Pipelines and Orchestration	10:00	13:00	NTU
WED	4 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
THU	5 Jun-25	2.7	Data Orchestration and Testing	10:00	13:00	NTU
THU	5 Jun-25	CO	Coaching	14:00	17:00	NTU
FRI	6 Jun-25	2.8	Out of Core/Memory Processing	10:00	13:00	NTU
SAT	7 Jun-25	PH	Hari Raya Haji			
SUN	8 Jun-25					
MON	9 Jun-25	PH	Hari Raya Haji (off in lieu)			
TUE	10 Jun-25	2.9	Distributed Batch Processing and Transformation	10:00	13:00	NTU
TUE	10 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
WED	11 Jun-25	CO	Coaching	10:00	13:00	NTU
WED	11 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
THU	12 Jun-25	2.10	Stream Processing and Analytics	10:00	13:00	NTU
THU	12 Jun-25	CO	Coaching	14:00	17:00	NTU
FRI	13 Jun-25		Assignment + Module Quiz + Self Study	10:00	13:00	Self Study
SAT	14 Jun-25					
SUN	15 Jun-25					
MON	16 Jun-25		Project	10:00	17:00	Self Study
TUE	17 Jun-25		Project	10:00	17:00	Self Study
WED	18 Jun-25		Project	10:00	17:00	Self Study
THU	19 Jun-25		Project	10:00	17:00	Self Study
FRI	20 Jun-25	PP	Project Presentation	10:00	13:00	NTU
SAT	21 Jun-25					
SUN	22 Jun-25					
C3: BUILDING INTELLIGENT SYSTEMS: MACHINE LEARNING AND GENERATIVE AI			Key Topics: Week 1: Introduction to Machine Learning Week 2: Supervised Learning Week 3: Unsupervised Learning Week 4: Neural Network, Deep Learning and Computer Vision Week 5: Natural Language Processing	Start	End	Mode of Delivery
MON	23 Jun-25	3.1	Probability and Statistics for ML	10:00	13:00	NTU
MON	23 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
TUE	24 Jun-25	3.2	Introduction to Machine Learning	10:00	13:00	NTU
TUE	24 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
WED	25 Jun-25	3.3	Supervised Learning	10:00	13:00	NTU
WED	25 Jun-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
THU	26 Jun-25	3.4	Supervised Learning - Advanced	10:00	13:00	NTU
THU	26 Jun-25	CO	Coaching	14:00	17:00	NTU
FRI	27 Jun-25		Assignment + Quiz + Self Study	10:00	13:00	Self Study
SAT	28 Jun-25					
SUN	29 Jun-25					
MON	30 Jun-25	CO	Coaching	10:00	13:00	NTU
TUE	1 Jul-25	3.5	Unsupervised Learning	10:00	13:00	NTU
TUE	1 Jul-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
WED	2 Jul-25	3.6	Time Series Data and Forecasting	10:00	13:00	NTU
WED	2 Jul-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
THU	3 Jul-25	3.7	Neural Network & Deep Learning	10:00	13:00	NTU
THU	3 Jul-25	CO	Coaching	14:00	17:00	NTU
FRI	4 Jul-25	CW	Career Workshop #3 - Connecting with Purpose: Networking for Career Transitions	10:00	13:00	NTU
FRI	4 Jul-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
SAT	5 Jul-25					
SUN	6 Jul-25					

Schedule for (SCTP) Advanced Professional Certificate in Data Science and Artificial Intelligence - Cohort 1 (Full Time)

Updated: 7 Feb 25

Date		Unit	Lesson Title	Start	End	Mode of Delivery
MON	7 Jul-25	3.8	Computer Vision (CV)	10:00	13:00	NTU
MON	7 Jul-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
TUE	8 Jul-25	CO	Coaching	10:00	13:00	NTU
WED	9 Jul-25	3.9	Natural Language Processing (NLP)	10:00	13:00	NTU
WED	9 Jul-25		Assignment + Quiz + Self Study	14:00	17:00	Self Study
THU	10 Jul-25	3.10	NLP - Advanced	10:00	13:00	NTU
THU	10 Jul-25	CO	Coaching	14:00	17:00	NTU
FRI	11 Jul-25		Assignment + Module Quiz + Self Study	10:00	13:00	Self Study
SAT	12 Jul-25					
SUN	13 Jul-25					
C4: AWS CERTIFIED AI PRACTITIONER				Start	End	Mode of Delivery
MON	14 Jul-25		AWS Certified AI Practitioner	10:00	13:00	NTU
MON	14 Jul-25		AWS Certified AI Practitioner	14:00	17:00	NTU
TUE	15 Jul-25		AWS Certified AI Practitioner	10:00	13:00	NTU
WED	16 Jul-25		AWS Certified AI Practitioner	10:00	13:00	NTU
WED	16 Jul-25		AWS Certified AI Practitioner	14:00	17:00	NTU
C5: TRANSFORMING BUSINESS WITH GPT: HANDS-ON GENERATIVE AI APPLICATIONS				Start	End	Mode of Delivery
THU	17 Jul-25		Generative AI	10:00	13:00	NTU
THU	17 Jul-25		Generative AI	14:00	17:00	NTU
FRI	18 Jul-25		Generative AI	10:00	13:00	NTU
FRI	18 Jul-25	CW	Career Workshop #4 - Crafting the Perfect Resume: Telling Your Unique Story	14:00	17:00	NTU
SAT	19 Jul-25					
SUN	20 Jul-25					
MON	21 Jul-25		Generative AI	10:00	13:00	NTU
MON	21 Jul-25		Generative AI	14:00	17:00	NTU
C6: FULL STACK PROGRAMMING AND DEPLOYMENT OF AI SOLUTIONS				Start	End	Mode of Delivery
TUE	22 Jul-25		Deployment I: Python Flask, SQLite and HTML, CSS	10:00	13:00	NTU
WED	23 Jul-25		Deployent I: API Progrmming (replicate, google suite, openAI)	10:00	13:00	NTU
THU	24 Jul-25		Deployment I: Cloud AWS/Render/Google Clab/React/UI UX	10:00	13:00	NTU
FRI	25 Jul-25		Deploement I: Project Management/Agile/Scrum/Monday.com & Web3 Solidity/Remix/Infura/Etherscan	10:00	17:00	NTU
SAT	26 Jul-25					
SUN	27 Jul-25					
MON	28 Jul-25		Deployment II: Python Flask, SQLite and HTML, CSS	10:00	13:00	NTU
TUE	29 Jul-25		Deployent II: API Progrmming (replicate, google suite, openAI)	10:00	13:00	NTU
WED	30 Jul-25		Deployment II: Cloud AWS/Render/Google Clab/React/UI UX	10:00	13:00	NTU
THU	31 Jul-25		Deploymentment II : Project Management/Agile/Scrum/Monday.com & Capstone	10:00	17:00	NTU
FRI	1 Aug-25	CW	Career Workshop #5 - Ace the Interview and Beyond: From Preparation to Next Steps	10:00	13:00	NTU

- All lecture will be in person unless otherwise stated
- F2F lecture will be held at NTU@one-north campus (off North Buona Vista Road)
- NTU reserves the right to change the date, mode/venue of lesson or cancel class due to unforeseen circumstances