

Schedule for (SCTP) Advanced Professional Certificate in Data Science and Artificial Intelligence - Cohort 4 (Part Time)

Updated: 27 Aug 25

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
SAT	10 Jan-26	Welcome + Introduction + Onboarding	09:00	12:00	NTU@One-North
SUN	11 Jan-26				
MON	12 Jan-26				
TUE	13 Jan-26	1.1 Intro to Data Science	19:00	22:00	Online Zoom
WED	14 Jan-26	Self Study	19:00	22:00	Self study
THU	15 Jan-26	1.2 Introduction to Database	19:00	22:00	Online Zoom
FRI	16 Jan-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	17 Jan-26	CW Career Workshop #1 - Uncover Your Next Path: Career Discovery for Mid-Career Changers	09:00	12:00	NTU@One-North
SUN	18 Jan-26				
MON	19 Jan-26				
TUE	20 Jan-26	1.3 SQL Basic - DDL	19:00	22:00	Online Zoom
WED	21 Jan-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	22 Jan-26	1.4 SQL Basic - DML	19:00	22:00	Online Zoom
FRI	23 Jan-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	24 Jan-26	CO Coaching	09:00	12:00	NTU@One-North
SUN	25 Jan-26				
MON	26 Jan-26				
TUE	27 Jan-26	1.5 SQL Advanced	19:00	22:00	Online Zoom
WED	28 Jan-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	29 Jan-26	1.6 Introduction to Numpy	19:00	22:00	Online Zoom
FRI	30 Jan-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	31 Jan-26	CO Coaching	09:00	12:00	NTU@One-North
SUN	1 Feb-26				
MON	2 Feb-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
TUE	3 Feb-26	1.7 Introduction to Pandas	19:00	22:00	Online Zoom
WED	4 Feb-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	5 Feb-26	1.8 Exploratory Data Analysis (EDA) Basic	19:00	22:00	Online Zoom
FRI	6 Feb-26				
SAT	7 Feb-26	CO Coaching	09:00	12:00	NTU@One-North
SUN	8 Feb-26				
MON	9 Feb-26	CW Career Workshop #2 - Stand Out: Building a Powerful Professional Brand	19:00	22:00	Online Zoom
TUE	10 Feb-26	1.9 EDA Advanced	19:00	22:00	Online Zoom
WED	11 Feb-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	12 Feb-26	1.10 Data Visualization	19:00	22:00	Online Zoom
FRI	13 Feb-26	Assignment + Module Quiz + Self Study	19:00	22:00	Self study
SAT	14 Feb-26	CO Coaching	09:00	12:00	NTU@One-North
SUN	15 Feb-26				
MON	16 Feb-26	PH Eve of CNY			
TUE	17 Feb-26	PH Chinese New Year Day 1			
WED	18 Feb-26	PH Chinese New Year Day 2			
THU	19 Feb-26	PH Chinese New Year Day 3			
FRI	20 Feb-26	PH BREAK			
SAT	21 Feb-26	PH BREAK			
SUN	22 Feb-26				
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	23 Feb-26				
TUE	24 Feb-26	2.1 Introduction to Big Data and Data Engineering	19:00	22:00	Online Zoom
WED	25 Feb-26	Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	26 Feb-26	2.2 Data Architecture	19:00	22:00	Online Zoom



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FRI	27 Feb-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	28 Feb-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	1 Mar-26					
MON	2 Mar-26					
TUE	3 Mar-26	2.3	Data Encoding and Data Flow	19:00	22:00	Online Zoom
WED	4 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	5 Mar-26	2.4	Data Extraction and Web Scraping	19:00	22:00	Online Zoom
FRI	6 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	7 Mar-26	CO	Coaching (GitHub)	09:00	12:00	NTU@One-North
SUN	8 Mar-26					
MON	9 Mar-26	CW	Career Workshop #3 - Connecting with Purpose: Networking for Career Transitions	19:00	22:00	Online Zoom
TUE	10 Mar-26	2.5	Data Warehouse	19:00	22:00	Online Zoom
WED	11 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	12 Mar-26	2.6	Data Pipelines and Orchestration	19:00	22:00	Online Zoom
FRI	13 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	14 Mar-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	15 Mar-26					
MON	16 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
TUE	17 Mar-26	2.7	Data Orchestration and Testing	19:00	22:00	Online Zoom
WED	18 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	19 Mar-26	2.8	Out of Core/Memory Processing	19:00	22:00	Online Zoom
FRI	20 Mar-26	PH	Hari Raya Puasa			
SAT	21 Mar-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	22 Mar-26					
MON	23 Mar-26					
TUE	24 Mar-26	2.9	Distributed Batch Processing and Transformation	19:00	22:00	Online Zoom
WED	25 Mar-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	26 Mar-26	2.10	Stream Processing and Analytics	19:00	22:00	Online Zoom
FRI	27 Mar-26		Assignment + Module Quiz + Self Study	19:00	22:00	Self study
SAT	28 Mar-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	29 Mar-26					
MON	30 Mar-26		Project	09:00	17:00	
TUE	31 Mar-26		Project	09:00	17:00	
WED	1 Apr-26		Project	09:00	17:00	
THU	2 Apr-26		Project	09:00	17:00	
FRI	3 Apr-26	PH	Good Friday	09:00	17:00	
SAT	4 Apr-26	PP	Project Presentation	09:00	12:00	NTU@One-North
SUN	5 Apr-26					
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	6 Apr-26					
TUE	7 Apr-26	3.1	Probability and Statistics for ML	19:00	22:00	Online Zoom
WED	8 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	9 Apr-26	3.2	Introduction to Machine Learning	19:00	22:00	Online Zoom
FRI	10 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	11 Apr-26	CO	Coaching	09:00	12:00	NTU@One-North
		CW	Career Workshop #4 - Crafting the Perfect Resume: Telling Your Unique Story	13:00	16:00	NTU@One-North
SUN	12 Apr-26					
MON	13 Apr-26					
TUE	14 Apr-26	3.3	Supervised Learning	19:00	22:00	Online Zoom
WED	15 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	16 Apr-26	3.4	Supervised Learning - Advanced	19:00	22:00	Online Zoom
FRI	17 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	18 Apr-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	19 Apr-26					



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MON	20 Apr-26					
TUE	21 Apr-26	3.5	Unsupervised Learning	19:00	22:00	Online Zoom
WED	22 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	23 Apr-26	3.6	Time Series Data and Forecasting	19:00	22:00	Online Zoom
FRI	24 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
SAT	25 Apr-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	26 Apr-26					
MON	27 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
TUE	28 Apr-26	3.7	Neural Network & Deep Learning	19:00	22:00	Online Zoom
WED	29 Apr-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	30 Apr-26	3.8	Computer Vision (CV)	19:00	22:00	Online Zoom
FRI	1 May-26	PH	Labour Day			
SAT	2 May-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	3 May-26					
MON	4 May-26					
TUE	5 May-26	3.9	Natural Language Processing (NLP)	19:00	22:00	Online Zoom
WED	6 May-26		Assignment + Quiz + Self Study	19:00	22:00	Self study
THU	7 May-26	3.10	NLP - Advanced	19:00	22:00	Online Zoom
FRI	8 May-26		Assignment + Module Quiz + Self Study	19:00	22:00	Self study
SAT	9 May-26	CO	Coaching	09:00	12:00	NTU@One-North
SUN	10 May-26					
C4: AWS CERTIFIED AI PRACTITIONER						Mode of Delivery
MON	11 May-26					
TUE	12 May-26		AWS Certified AI Practitioner	19:00	22:00	Online Zoom
WED	13 May-26		AWS Certified AI Practitioner	19:00	22:00	Online Zoom
THU	14 May-26		AWS Certified AI Practitioner	19:00	22:00	Online Zoom
FRI	15 May-26					
SAT	16 May-26		AWS Certified AI Practitioner	09:00	16:00	NTU@One-North
SUN	17 May-26					
C5: TRANSFORMING BUSINESS WITH GPT: HANDS-ON GENERATIVE AI APPLICATIONS				Start	End	Mode of Delivery
MON	18 May-26					
TUE	19 May-26		Generative AI	19:00	22:00	Online Zoom
WED	20 May-26		Generative AI	19:00	22:00	Online Zoom
THU	21 May-26		Generative AI	19:00	22:00	Online Zoom
FRI	22 May-26					
SAT	23 May-26		Genrative AI	09:00	16:00	NTU@One-North
SUN	24 May-26					
C6: FULL STACK PROGRAMMING AND DEPLOYMENT OF AI SOLUTIONS				Start	End	Mode of Delivery
MON	25 May-26	CW	Career Workshop #5 - Ace the Interview and Beyond: From Preparation to Next Steps	19:00	22:00	Online Zoom
TUE	26 May-26		Deployment I: Python Flask, SQLite and HTML, CSS	19:00	22:00	Online Zoom
WED	27 May-26	PH	Hari Raya Haji			
THU	28 May-26		Deployment I: API Progrmming (replicate, google suite, openAI)	19:00	22:00	Online Zoom
FRI	29 May-26		Deployment I: Cloud AWS/Render/Google Clab/React/UI UX	19:00	22:00	Online Zoom
SAT	30 May-26		Deployment I: Project Management/Agile/Scrum/Monday.com + Web3 Solidity/Remix/Infura/Etherscan	09:00	16:00	NTU@One-North
SUN	31 May-26	PH	Vesak Day			
MON	1 Jun-26	PH	Vesak Day			
TUE	2 Jun-26		Deployment II: Python Flask, SQLite and HTML, CSS	19:00	22:00	Online Zoom
WED	3 Jun-26		Deployment II: API Programming (replicate, google suite, openAI)	19:00	22:00	Online Zoom
THU	4 Jun-26		Deployment II: Cloud AWS/Render/Google Clab/React/UI UX	19:00	22:00	Online Zoom
FRI	5 Jun-26					
SAT	6 Jun-26		Deployment II : Project Management/Agile/Scrum/Monday.com + Capstone	09:00	16:00	NTU@One-North
SUN	7 Jun-26		Optional Class: Capstone Project	14:00	16:00	Online Zoom



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• All lecture will be facilitated Virtually 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					