

(SCTP) Advanced Professional Certificate in Data Analytics: 19 May to 22 August 2025

SN	Week	Module Name	Class Type	Online Type	Topics	Hours	Trainer	Date	Day	Time			Location	Remarks
		Data Management, Data Wrangling and Exploratory Data Analysis (EDA)		Synchronous and Asynchronous	LEARNING OBJECTIVES: Week 1: Introduction to Data Management and Wrangling and EDA concepts Week 2: Introduction to Relational Databases and SQL Statements Week 3: Understanding Data Model Documentation Week 4: Shaping Data with SQL	52	Kan Hwa Heng Francis Tay			Attendance Check-in times				Participants will be required to have SQLite and DB Browser for SQLite installed in their PC or Macbook.
1	Wk 1	Introduction to Data Management and Wrangling and EDA concepts	Check-in	Synchronous	Introduction to Programme and Module	2	Francis Tay Kan Hwa Heng	19-May-25	Monday	7:00 pm	to	8:00 pm		Introductory Lecture
2			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	20-May-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
3			Lecture	Synchronous	Introduction to Data Wrangling, EDA, etc.	3	Kan Hwa Heng	21-May-25	Wednesday	7:00 pm	to	10:00 pm		Lecture and Group Work
4			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Kan Hwa Heng	22-May-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
5			Assignment/Quiz	Asynchronous	Assignment/Quiz	3	Kan Hwa Heng	23-May-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
7	Wk 2	Introduction to Relational Databases and SQL statements	Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	26-May-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
8			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	27-May-25	Tuesday	11:00 am	to	11:00 pm		Check in anytime to get materials for self-learning in "Content" section.
9			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Kan Hwa Heng	28-May-25	Wednesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
10			Lecture	Synchronous	Extra Session - Week 2 Recap	2	Kan Hwa Heng	29-May-25	Thursday	7:00 pm	to	9:00 pm		Optional
11			Assignment/Quiz	Asynchronous	Assignment/Quiz	3	Kan Hwa Heng	30-May-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
11			Lecture	F2F	Introduction to Relational Databases and SQL statements.	3	Kan Hwa Heng	31-May-25	Saturday	9:00 am	to	12:00 pm		Lecture and Group Work
12	Wk 3	Introduction to Data Model Documentation	Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	2-Jun-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
13			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	3-Jun-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
14			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	4-Jun-25	Wednesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
10			Lecture	Synchronous	Extra Session - Week 2 Recap	2	Kan Hwa Heng	5-Jun-25	Thursday	7:00 pm	to	9:00 pm		Optional
			Lecture	F2F	Career Pathfinder Series - Module 1 - Fundamentals of Career Discovery Navigation and Readiness	3	Justus Teo	6-Jun-25	Friday	7:00 pm	to	9.30pm		Lecture and Group Work
11			Lecture	F2F	SQL Statements. Data model documentation. (Part 2 of 2)	3	Kan Hwa Heng	7-Jun-25	Saturday	9:00 am	to	12:00 pm		Lecture and Group Work
17	Wk 4	Shaping data with SQL	Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	9-Jun-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
18			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Kan Hwa Heng	10-Jun-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
19			Lecture	Synchronous	Shaping Data with SQL.	3	Kan Hwa Heng	11-Jun-25	Wednesday	7:00 pm	to	10:00 pm		Lecture and Group Work
20			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Kan Hwa Heng	12-Jun-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
21			Assignment/Quiz	Asynchronous	Assignment/Final Module Quiz	3	Kan Hwa Heng	13-Jun-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
		Analysing and Interpreting Data		Synchronous and Asynchronous	LEARNING OBJECTIVES: Week 5: Introduction to Business Analytics and Forecasting & Time Series Week 6: Benchmarking Week 7: Project Week 1 Week 8: Forecasting Week 9: Forecasting & Scenarios Week 10: Project Week 2 + Presentation	88	Francis Tay							Participants will be required to have Microsoft Excel installed in their PC or Macbook. Preference is for participants to have Excel 365, Excel 2016 or later. For this course, it is preferable to have Windows PC as many applications operated best on PC. For Mac users, please refer to notes on how to run Windows on Mac.
22	Wk 5	Introduction to Business Analytics and Forecasting & Time Series	Check-in	Synchronous	Introduction to Module	1	Francis Tay	16-Jun-25	Monday	7:00 pm	to	8:00 pm		Introduction and the use of Excel for data analysis.
23			Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	17-Jun-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
25			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	3	Francis Tay	18-Jun-25	Wednesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
24			Lecture	Synchronous	Data Cleaning & Time Series Analysis	2	Francis Tay	19-Jun-25	Thursday	7:00 pm	to	9:00 pm		Use of Excel and hand-on work.
26			Assignment/Quiz	Asynchronous	Assignment/Quiz	2	Francis Tay	20-Jun-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
27	Wk 6	Benchmarking & Forecasting	Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	23-Jun-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
28			Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	24-Jun-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
29			Lecture	Synchronous	Benchmarking	2	Francis Tay	25-Jun-25	Wednesday	7:00 pm	to	9:00 pm		Use of Excel and hand-on work.
30			Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	26-Jun-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
31			Assignment/Quiz	Asynchronous	Assignment/Quiz	2	Francis Tay	27-Jun-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
32			Lecture	F2F	Time Series and Benchmarking	3	Francis Tay	28-Jun-25	Saturday	10:00 am	to	1:00 pm		Lecture and Group Work

			Lecture	F2F	Career Pathfinder Series - Module 2 - Career Marketplace - Labour Market Research and Career Planning	3	Justus Teo	28-Jun-25	Saturday	2:00 pm	to	5:00 pm		
33	Wk 7	Dashboarding and Data Storytelling	Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	30-Jun-25	Monday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
34		and PROJECT WEEK 1	Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	1-Jul-25	Tuesday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
35			Lecture	Synchronous	Extra Session - Week 2 Recap	2	Francis Tay	2-Jul-25	Wednesday	7:00 pm	to	9:00 pm		Optional
36			Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	3-Jul-25	Thursday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
37			Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	4-Jul-25	Friday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
38	Wk 8	Forecasting Techniques (1)	Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	7-Jul-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
39			Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	8-Jul-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
40			Lecture	Synchronous	Forecasting, Scenarios	2	Francis Tay	9-Jul-25	Wednesday	7:00 pm	to	9:00 pm		Use of Excel and hand-on work.
41			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Francis Tay	10-Jul-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
42			Assignment/Quiz	Asynchronous	Assignment/Quiz	2	Francis Tay	11-Jul-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
43			Lecture	F2F	Forecasting, Scenarios	3	Francis Tay	12-Jul-25	Saturday	10:00 am	to	1:00 pm		Lecture and Group Work
			Lecture	F2F	Career Pathfinder Series - Module 3 - Career Readiness Prep - Personal Branding & Resume	3	Justus	12-Jul-25	Saturday	2:00 pm	to	5:00 pm		
44	Wk 9	Forecasting Techniques (2)	Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	14-Jul-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
45			Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	15-Jul-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
46			Lecture	Synchronous	Correlation Analysis, MLR	3	Francis Tay	16-Jul-25	Wednesday	7:00 pm	to	9:00 pm		Use of Excel and hand-on work.
47			Check-in	Asynchronous	Access to Materials, Self-Learning.	3	Francis Tay	17-Jul-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
48			Assignment/Quiz	Asynchronous	Assignment/Quiz	2	Francis Tay	18-Jul-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
49			Lecture	F2F	Project Consult	3	Francis Tay	19-Jul-25	Saturday	10:00 am	to	1:00 pm		Lecture and Group Work
50	Wk 10	PROJECT WEEK 2 and Presentation	Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	21-Jul-25	Monday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
51			Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	22-Jul-25	Tuesday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
52			Check-in	Asynchronous	Work on Excel Dashboard Project	3	Francis Tay	23-Jul-25	Wednesday	10:00 am	to	10:00 pm		Use of Excel and Work on project.
53			Assignment/Quiz	Asynchronous	Assignment/Quiz	2	Francis Tay	24-Jul-25	Thursday	10:00 am	to	10:00 pm		Assignment/Quiz due date
54			Lecture	Synchronous	Project Presentation	3	Francis Tay	25-Jul-25	Friday	7:00 pm	to	10:00 pm		Project Due Date
			Lecture	F2F	Career Pathfinder Series - Modules 4 & 5 - Career Readiness Prep - Interview prep + mock interviews	3	Justus Teo	26-Jul-25	Saturday	9:30 am	to	12:30 pm		
		Communicating Insights, Dashboarding and Data Storytelling		Synchronous and Asynchronous	LEARNING OBJECTIVES: Week 11: Introduction to Data Visualization and Data Storytelling; Basic chart creation in Tableau Week 12: Manage and Manipulate Data within Tableau; Exploring data using charts Week 13: Creating Dashboards and Telling Story Week 14: Basic Predictive Analytics	55	Khoo Seok Teng							Participants will be required to download FREE version of TABLEAU Public 2022 at https://public.tableau.com/en-us/s/download . Recommended System Requirements: • OS: Windows PC – Windows 8 or later, MacOS 10.14 or later. • RAM: Minimum 2 GB • Hard Disk Space: 2 GB Tableau Public Account Required: • Register link: https://public.tableau.com/en-us/s/ • Use "Sign up" button on top right of page
55	Wk 11	Introduction to Data Visualization and Data Storytelling. Basic chart creation in Tableau.	Lecture	Synchronous	Module Introduction. Introduction to Data Visualization and Data Storytelling with Tableau. Familiarise with Tableau Interface and Basic Chart Creation.	3	Khoo Seok Teng	28-Jul-25	Monday	7:00 pm	to	10:00 pm		Introduction and Lecture
56			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Khoo Seok Teng	29-Jul-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
57			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Khoo Seok Teng	30-Jul-25	Wednesday	10:00 am	to	10:00 pm		Midweek recorded lecture with assignment
58			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	31-Jul-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
59			Assignment/Quiz	Asynchronous	Assignment/Quiz	3	Khoo Seok Teng	1-Aug-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
60			Lecture	F2F	Data Manipulation in Tableau; Creating charts to explore data using charts	3	Khoo Seok Teng	2-Aug-25	Saturday	9:00 am	to	12:00 pm		Lecture and Group Work
61	Wk 12	Manage and Manipulate data within Tableau; Exploring data using charts	Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	4-Aug-25	Monday	9:00 am	to	9:00 pm		Check in anytime to get materials for self-learning in "Content" section.
62			Lecture	Synchronous	Extra Session - Week 1 Recap	2	Khoo Seok Teng	5-Aug-25	Tuesday	7:00 pm	to	9:00 pm		Optional
63			Lecture	Synchronous	Basic Predictive Analytics using Clusters and Forecasting	3	Khoo Seok Teng	6-Aug-25	Wednesday	7:00 pm	to	10:00 pm		Lecture and Group Work
64			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	7-Aug-25	Thursday	9:00 am	to	9:00 pm		Check in anytime to get materials for self-learning in "Content" section.
65			Assignment/Quiz	Asynchronous	Assignment/Quiz	3	Khoo Seok Teng	8-Aug-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
66	Wk 13	Creating Dashboards and Telling Story using Tableau	Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	11-Aug-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
67			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	12-Aug-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
68			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	13-Aug-25	Wednesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
69			Lecture	Synchronous	Extra Session - Week 1 Recap	2	Khoo Seok Teng	14-Aug-25	Thursday	7:00 pm	to	9:00 pm		Optional
70			Assignment/Quiz	Asynchronous	Assignment/Quiz	3	Khoo Seok Teng	15-Aug-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date
71			Lecture	F2F	Creating dashboards with interactivity and telling story using Tableau	3	Khoo Seok Teng	16-Aug-25	Saturday	1:00 pm	to	4:00 pm		Lecture and Group Work
			Lecture	F2F	Career Pathfinder Series - Module 6 - Career Transition and Stabilization	2	Justus Teo	16-Aug-25	Saturday	9:00 am	to	12:00 pm		

72	Wk 14	Apply basic predictive analytics using Clusters and Forecasting	Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Khoo Seok Teng	18-Aug-25	Monday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
73			Check-in	Asynchronous	Access to Materials, Self-Learning.	2	Khoo Seok Teng	19-Aug-25	Tuesday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
74			Lecture	Synchronous	Basic Predictive Analytics using Clusters and Forecasting	3	Khoo Seok Teng	20-Aug-25	Wednesday	7:00 pm	to	10:00 pm		Lecture and Group Work
75			Check-in	Asynchronous	Access to Materials, Self-Learning. Work on Assignment.	2	Khoo Seok Teng	21-Aug-25	Thursday	10:00 am	to	10:00 pm		Check in anytime to get materials for self-learning in "Content" section.
76			Assignment/Quiz	Asynchronous	Assignment/Final Module Quiz	3	Khoo Seok Teng	22-Aug-25	Friday	10:00 am	to	10:00 pm		Assignment/Quiz due date

• All lectures will be facilitated virtually unless otherwise stated
 • F2F lectures will be held at NTU@one-north campus (11 Slim Barracks Rise, Singapore 138664)
 • NTU reserves the right to change the date, mode/venue of lessons or cancel them due to unforeseen circumstances