

Schedule for (SCTP) Advanced Professional Certificate in Sustainable Urban Environments- Cohort 3 (Part Time)
Updated: 18 Jun 2026

Total Hours	Hours		Course: (SCTP) Advanced Professional Cert in AI and Urban Intelligence for Future Cities			
132			Main Program		Description:	The Advanced Professional Certificate in Sustainable Urban Environments is crafted for mid-to-senior leaders committed to driving sustainable urban transformation. This immersive programme deepens expertise in green building technologies, renewable energy, advanced sustainability practices, and urban resilience, equipping participants to lead impactful, strategic change within their organizations. Combining expert-led workshops, interactive case studies, and exclusive site visits to NTU's Research Institutes and Singapore's sustainable landmarks, the programme offers unparalleled access to cutting-edge research and practical insights. Participants gain a global perspective enriched by Singapore's sustainable models, with practical tools to make strategic, environmentally aligned decisions. Designed to bridge theory with practical application, this programme empowers leaders to address real-world sustainability challenges alongside industry experts. Through a network of like-minded professionals, participants can expand their influence, fostering partnerships that support their organization's sustainability vision. This programme is a forward-looking investment, preparing leaders to reshape urban landscapes with solutions that promote environmental resilience, economic viability, and social equity, propelling cities toward a sustainable future.
			Mode	Date & Time	Module	Program Topics
28	Module 1				Launch Program	Launch of the Program
					Core Module 1	Transitioning with Digital and Sustainable Skills
					CM Description:	The Core Module "Empowering Digital & Sustainable Urban Leaders" equips participants with key leadership and digital competencies to drive sustainability and digital transformation in Urban Environments. It begins with personal leadership development, fostering self-awareness and accountability. Participants then explore data intelligence, AI, and digital transformation to enhance sustainable decision-making. The module concludes with design thinking and human-systems strategy, enabling multi-dimensional problem-
					Part 1: Title	Programme Launch
3	Session 1	F2F		19/09/26 Sat 9am-12pm	LP-D1-1	Welcome & Networking Lunch
1	Session 1	F2F		19/09/26 Sat 12pm-1pm	LP-D1-2	Introduction of the Program & Overview
1	Session 1	F2F		19/09/26 Sat 1pm-2pm	LP-D1-3	Leadership
3	Session 2	Virtual		23/09/26 Wed 7pm-9pm	LP-D1-4	NTU PACE Career Advisory Sharing
					Part 2: Title	Foundations of Personal Leadership
1.5	Session 3	F2F		19/09/26, Sat, 2-3.30pm	CM: D1-T1	Leading Self
1.5	Session 3	F2F		19/09/26, Sat, 3.30-5pm	CM: D1-T2	The Why, How and What
1	Session 3	F2F		19/09/26, Sat, 5-6pm	CM: D1-T3	Personal Awareness Report Part 1
					Part 3: Title	Leading with Intelligence
2	Session 3	F2F		25/09/26, Fri, 9-11am	CM: D1-T3	Personal Awareness Report Part 2
1	Session 4	F2F		25/09/26, Fri, 11am-12pm	CM: D2-T1	The Value of Data/Cycle of Intelligence
1	Session 4	F2F		25/09/26, Fri, 1-2pm	CM: D2-T2	Data Analytics and AI
1	Session 4	F2F		25/09/26, Fri, 2-3pm	CM: D2-T3	Generative AI
1	Session 4	F2F		25/09/26, Fri, 3-4pm	CM: D2-T4	Overview of Digital Transformation
1	Session 4	F2F		25/09/26, Fri, 4-5pm	CM: D2-T5	Overview of Triple Bottom Line & ESG
1	Session 4	F2F		25/09/26, Fri, 5-6pm	CM: D2-T6	Leading Change
					Part 4: Title	Journey-led Application
1	Session 5	F2F		26/09/26, Sat, 9-10am	CM: D3-T7	Reframing the Problem
1	Session 5	F2F		26/09/26, Sat, 10-11am	CM: D3-T8	Design Thinking / Human Systems Thinking
4	Session 5	F2F		26/09/26, Sat, 11am-4pm	CM: D3-T9	Vision & Outcome to Use Cases Road-mapping
1	Session 5	F2F		26/09/26, Sat, 4-5pm	CM: D3-T10	Delivering and executing AI projects
1	Session 5	Virtual		26/09/26, Sat, 5-6pm	Module 1 ASSESSMENT	
21	Module 2				Module 2: Title	Foundations of Sustainable Urban Environments
					D-M2 Description:	This course provides a comprehensive foundation in urban sustainability, anchored in Singapore's Sustainability Blueprint, Green Plan 2030, and Energy Plan 2050. Participants will gain critical insights into climate resilience, urban planning, and regulatory frameworks essential for designing energy-efficient, adaptable, and sustainable cities. The course covers global sustainability trends, environmental challenges, and opportunities in urban planning, laying the groundwork for climate action strategies and governance frameworks. Participants will explore key topics such as green building regulations, climate change adaptation, and urban infrastructure for sustainable cities. What sets this course apart is its experiential learning approach. Participants will engage in expert-led discussions, guest speaker sessions, and exclusive site visits, including a trip to Gardens by the Bay, offering first-hand exposure to real-world applications of sustainable urban solutions. By the end of the program, attendees will be equipped with practical strategies to drive impactful, resilient, and sustainable urban transformations.
					Part 1: Title	Foundations of Urban Sustainability
1	Session 6	F2F		03/10/26, Sat, 9-10am	D-Module 2-D1-T1	Global Trends in Sustainable Urban Development
1	Session 6	F2F		03/10/26, Sat, 10-11am	D-Module 2-D1-T2	Urban Environment challenges and Opportunities
1	Session 6	F2F		03/10/26, Sat, 11-12pm	D-Module 2-D1-T3	Industry Insights - Speaker
4	Session 6	F2F		03/10/26, Sat, 1-5pm	D-Module 2-D1-T3	Site Visit to URA
					Part 2: Title	Policies Frameworks and Regulatory Environments
2	Session 7	Virtual		06/10/26, Tue, 6-8pm	D-Module 2-D2-T1	Global and Local Green Building Policies, Regulations and Standards
2	Session 7	Virtual		06/10/26, Tue, 8-10pm	D-Module 2-D2-T2	Singapore Sustainability Blueprint: UN-SDG, Singapore Green Plan 2030
1	Session 8	Virtual		07/10/26, Wed, 6-7pm	D-Module 2-D2-T3	Industry Insights - Speaker
2	Session 8	Virtual		07/10/26, Wed, 7-9pm	D-Module 2-D2-T3	Urban Climate Action Plans and Governance
3	Session 24	F2F		08/10/26, Thu, 7-10pm	Moduel 6: Session 1	Capstone Project Kick-Off - SD1
					Part 3: Title	Climate Change, Science and Impact
4	Session 9	Virtual		13/10/26, Tue, 6-10pm	D-Module 2-D3-T1	Climate Change Impact, Adaptation and Resiliency in City Planning (P
2	Session 10	Virtual		14/10/26, Wed, 7-9pm	D-Module 2-D3-T2	Climate Change Impact, Adaptation and Resiliency in City Planning (P
1	Session 10	Virtual		14/10/26, Wed, 9-10pm	Module 2 ASSESSMENT	
21	Module 3				Module 3: Title	Green and Resilient Urban Environments

				D-M3 Description:	This course offers a comprehensive exploration of sustainable urban development, focusing on advanced green building technologies, renewable energy transitions, and climate resilience strategies. Participants will gain in-depth knowledge of super low-energy and net-zero buildings, innovations in sustainable construction materials, and energy-efficient building design. This course also delves into renewable energy integration, covering topics such as smart grids, energy imports, and urban energy transitions to support Singapore's sustainability goals. Additionally, it addresses urban resilience, equipping participants with strategies to mitigate climate-related disruptions, and design sustainable coastal and marine urban areas.
				Part 1: Title	Green Building Strategies and Technologies
2	Session 11	F2F	16/10/26, Fri, 9-11am	Module3-D1-T1	Green Building Design Strategies & Technologies (Part 1) - Building Life
2	Session 11	F2F	16/10/26, Fri, 11am-1pm	Module3-D1-T2	Green Building Design Strategies & Technologies (Part 2) - Pathway to
3	Session 11	F2F	16/10/26, Fri, 2-5pm	Module3-D1-T3	Site Visit to PUB Singapore Sustainability Gallery
3	Session 25	Virtual	17/10/26, Sat, 9am-12pm	Module 6: Session 2	Project check-in/ Group discussion - S02
		Virtual	19/10/26, Mon, 7-9pm		NTU PACE Career Advisory Sharing
				Part 2: Title	Renewable Energy & Transition
3	Session 12	Virtual	20/10/26, Tue, 7-10pm	Module3-D2-T1	Renewable Energy, Smart Grid + Guest Speakers
3	Session 13	Virtual	21/10/26, Wed, 7-10pm	Module3-D2-T2	Energy Transition to Net Zero (ASEAN Perspective)
				Part 3: Title	Designing Resilient Cities
1	Session 14	Virtual	22/10/26, Thu, 6-7pm	Module3-D3-T1	Industry Insights- Designing Resilient Cities (Speakers)
3	Session 14	Virtual	22/10/26, Thu, 7-10pm	Module3-D3-T2	Designing Resilient Cities Part 1
3	Session 15	Virtual	24/10/26, Sat, 9am-12pm	Module3-D3-T3	Designing Resilient Cities Part 2
1	Session 15	Virtual	24/10/26, Sat, 12-1pm	Module 3 ASSESSMENT	
21	Module 4			Module 4: Title	Social & Economics of Urban Environments
				M4 Description:	This course examines the social, economic, and environmental dimensions of urban sustainability, focusing on citizen-centric development, carbon management, and sustainable financing strategies. Participants will explore nature-based solutions to create resilient and liveable communities, addressing key urban challenges such as health and wellness, aging population, and sustainable landscape integration.
3	Session 26	Virtual	27/10/26, Tue, 7-10pm	Module 6: Session 3	Project check-in/ Group discussion - S03
				Part 1: Title	Social & Citizen Centricity in Sustainability
3	Session 16	Virtual	28/10/26, Wed, 7-10pm	Module4-D1-T1	City in Nature Design for Health & Well-being (Part 1)
1	Session 17	Virtual	29/10/26, Thu, 6-7pm	Module4-D1-T2	Guest Speaker - Social Sustainability
3	Session 17	Virtual	29/10/26, Thu, 7-10pm	Module4-D1-T3	City in Nature Design for Health & Well-being (Part 2)
				Part 2: Title	Sustainability & Carbon Management
3	Session 27	Virtual	31/10/26, Sat, 9am-12pm	Module 6: Session 4	Project check-in/ Group discussion - S04
3	Session 18	Virtual	03/11/26, Tue, 7-10pm	Module4-D2-T1	Sustainability & Carbon Management part 1
4	Session 19	Virtual	04/11/26, Wed, 6-10pm	Module4-D2-T2	Sustainability & Carbon Management part 2
				Part 3: Title	Financing and Business Case Development
3	Session 20	F2F	06/11/26, Fri, 9am-12pm	Module4-D3-T1	Financing and Business Case Development
1	Session 20	Virtual	06/11/26, Fri, 12-1 pm	Module 4 ASSESSMENT	
3	Session 20	F2F	06/11/26, Fri, 2-5 pm	Module4-D3-T2	Site Visit: Industry Insights - LTA
18	Module 5			Module 5: Title	Future Trends and Innovations in Sustainable Urban Environments
				M5 Description:	This course explores the cutting-edge innovations and future trends shaping sustainable urban development and the transition to net-zero cities. Participants will gain critical insights into circular economy principles, advanced waste-to-resource technologies, and energy innovations, enabling them to design self-sustaining, low-carbon urban systems. Key topics include innovative urban waste management, renewable energy solutions (green hydrogen, nuclear, and energy storage), and net-zero urban planning strategies. Participants will examine real-world case studies of cities and industries advancing toward net-zero carbon goals and explore the role of emerging technologies such as carbon capture and smart grids in future urban environments.
				Part 1: Title	Circular Economy and Waste Management
2	Session 21	F2F	11/11/26, Wed, 9-11am	Module5-D1-T1	Principles of circular economy: reducing, reusing, and recycling in urb
2	Session 21	F2F	11/11/26, Wed, 11am-1pm	Module5-D1-T2	Innovations in waste-to-resource technologies and urban waste mana
3	Session 21	F2F	11/11/26, Wed, 2-5pm	Module5-D1-T3	Site Visit: Industry Insights to WTERF
				Part 2: Title	NTU Urban and Energy Research Innovations
2	Session 22	F2F	12/11/26, Thu, 9-11am	Module5-D2-T1	Experiential Visit: HDB LivingSpace (Residential Sustainability)
1	Session 22	F2F	12/11/26, Thu, 11am-12pm	Module5-D2-T2	Social Sustainability in the Urban Environment
1	Session 22	F2F	12/11/26, Thu, 1-2pm	Module5-D2-T3	Sharing of Insights to NTU@ERI@N (on behalf of Prof. Niels)
3	Session 22	F2F	12/11/26, Thu, 2-5pm	Module5-D2-T4	Site Visit: Experiential Visit by Atelier-10 (Surbana Jurong Subsidiary).
				Part 3: Title	Net Zero Urban in 2050: Trends and Innovations
3	Session 23	Virtual	14/11/26, Sat, 9am-12pm	Module5-D3-T1	Net Zero Urban in 2050: Trends and Innovations + Case Studies (Case
1	Session 23	Virtual	14/11/26, Sat, 12pm-1pm	Module 5 ASSESSMENT	
3	Session 23	Virtual	14/11/26, Sat, 2pm-5pm	Module5-D3-T2	Net Zero Urban in 2050: Trends and Innovations
3	Session 28	Virtual	18/11/26, Wed, 7-10pm	Module 6: Session 5	Project check-in/ Group discussion - S05
		F2F	19/11/26 Thur, 7-9pm		NTU PACE Career Advisory Sharing
23	Module 6			Module 6: Title	Capstone (Sustainable Urban Environments)
				M6 Description:	The Capstone Project is the culmination of the program, empowering learners to tackle real-world urban sustainability challenges through hands-on application. Participants will analyze case studies, develop actionable solutions, and apply urban sustainability strategies to address pressing environmental and planning issues. This project fosters interdisciplinary collaboration, integrating insights from urban planning, green technologies, policy frameworks, and business sustainability models. Working in team-based, industry-driven projects, learners will gain practical experience in solving complex urban challenges. By translating knowledge into action, the Capstone equips participants with the skills to design, advocate for, and implement innovative sustainability solutions, ensuring they are ready to drive meaningful change in urban environments for a more resilient and sustainable future.
8	Session 29	F2F	28/11/26, Sat, 9am-6pm	Session 6	Capstone Presentation

Capstone *Module 6 has been breakdown into the different dates within the cohorts as we embarked into different projects per modules

Career Advisory *Career Advisory sessions

Industry Insights and Visits *Industry Insights and Visits

*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