

2025 NUS Winter School

Location: Singapore

Grade: 10-12

Subjects: Data Analytics and Mathematical Statistics, Biomedicine, Economics, Psychology

- Choose from two colleges and four subjects offered by the National University of Singapore
- Be part of a high-quality, hands-on learning journey led by distinguished NUS faculty
- Receive a Certificate of Completion upon successful completion of the programme
- Be part of a high-quality, hands-on learning journey led by distinguished NUS faculty
- Explore iconic cultural landmarks in Singapore and visit prominent Singaporean companies



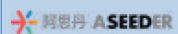
This programme is delivered by



School of Continuing and Lifelong Education



Faculty of Arts & Social Sciences



2025 NUS Winter School

■ National University of Singapore

The National University of Singapore (NUS) is a leading global university centred in Asia. NUS is well known for its research strengths in Mathematics, Economics, Life Sciences and Biomedicine, Social Sciences and Natural Sciences. NUS ranked Asia's top university and 8th in the world in the 2024 QS World University Rankings. Notable subject-specific rankings include 6th in the world for Computer Science and Information Systems, 11th for Data Science, 5th for Physics and Astronomy, and 3rd in Asia for Life Sciences and Medicine. Furthermore, NUS is positioned 1st in Asia for both Economics and Econometrics, as well as Psychology, according to QS.

■ School of Continuing and Lifelong Education

The National University of Singapore's School of Continuing and Lifelong Education (SCALE) was established in June 2016. It has curated a series of academic programs for outstanding global youth, aiming to expand knowledge, enhance innovative potential, instill a sense of global responsibility, and comprehensively cultivate 21st-century competencies. Through the innovative culture, outstanding academic influence, and global responsibility of the National University of Singapore, SCALE seeks to empower students in navigating the digital age and developing essential skills for the 21st century.

■ The Faculty of Arts and Social Sciences

The Faculty of Arts and Social Sciences (FASS) at the National University of Singapore (NUS) was established in 1929 and is one of the largest faculties at NUS. FASS focuses on in-depth research in the fields of Asian Studies, Humanities, Social Sciences and Languages. The faculty is committed to exploring cutting-edge disciplines in the humanities and social sciences, continually expanding the boundaries of knowledge. In 2013, FASS launched the FASStrack Asia: The Winter School, dedicated to providing high-quality academic courses for outstanding young talents worldwide. The programme aims to enhance participants' competitiveness and offers a variety of thematic courses taught by esteemed faculty.

■ Why us



NUS Immersive Learning Experience

This programme is offered by the School of Continuing and Lifelong Education and the Faculty of Arts and Social Sciences at the National University of Singapore. During the programme, students will immerse themselves in the NUS campus environment, experiencing the authentic atmosphere of a prestigious institution.



Certificate of Competence

Successful participants who complete all requirements of the SCALE programme will receive a certificate of completion issued by SCALE. Participants from the project team with the highest score for the group project will also receive a commendation letter. Participants who successfully fulfill all requirements of the FASS programme will be awarded an official completion certificate by FASS. Those ranking in the top 10% of the class will receive a special 'Pass with Distinction' recognition.



Project-based Learning

NUS Winter School selects and assigns tutors to conduct the course. The course is divided into two modules: lecture and tutorial. Project-based learning will develop students' teamwork skills while stimulating critical thinking, creativity, and problem-solving skills to prepare them for undergraduate study in the future.



Visits to Prominent Enterprises and Cultural Exploration

During the programme, students will have the opportunity to visit renowned Singaporean companies, engage closely with industry experts and workplace professionals, gaining insights into industry trends. Additionally, there will be opportunities to explore iconic entertainment and cultural venues in Singapore, such as the National Museum of Singapore, the Night Safari, and Merlion Park.

2025 NUS Winter School

■ Teaching Faculty

Data Analytics and Mathematical Statistics

Edmund Low



National University of Singapore Senior Lecturer

Dr Edmund Low is a senior lecturer with the University Scholars Programme (USP) at the National University of Singapore. He has more than 14 years of academic and professional experience in the use of data-driven tools to answer questions in public health and the environment. His past projects include the use of programming and visual libraries to develop simulation models for automating workflow processes, and the setting up of remote environmental sensing systems to automate real-time continuous monitoring, for early incident warning. Edmund holds a PhD in Environmental Engineering from Yale University.

Biomedicine

Seow Teck Keong



**National University of Singapore
Deputy Director and Associate Professor**

Professor Teck Keong has extensive teaching experience teaching basic biology and biochemistry courses in the Department of Biological Sciences at the National University of Singapore. His appointments as Resident Fellow of King Edward VII Hall and as Director for Residential Life and Resident Fellow at the College of Alice and Peter Tan have also motivated him to leave a lasting and positive impact on his students.

Economics

Guillem Riambau



**National University of Singapore
Visiting Scholar, PhD from Boston University**

Dr Guillem Riambau holds an undergraduate degree in economics and another one in political science, both awarded by the Universitat Autònoma de Barcelona (Spain). He obtained his PhD in Economics from Boston University in 2012 (USA). Dr Riambau has ample experience teaching in the most diverse settings and classrooms: he has lectured in Boston University, Harvard University, Universitat Autònoma de Barcelona, Yale-NUS College and NUS, among others. He currently holds an assistant professor position at the Universitat de Barcelona, and regularly visits NUS.

Psychology

Jia Lile



**National University of Singapore
Assoc. Prof. in the Department of Psychology**

Associate Professor Jia Lile graduated with a Bachelor of Social Sciences (First Class Honours) from the Department of Psychology, NUS, in 2007. In 2012, Assoc. Prof. Jia obtained his Ph.D. in Social Psychology from the Department of Psychological and Brain Sciences at Indiana University Bloomington, USA. He currently directs the Situated Goal Pursuit Lab (the SPUR lab) at the Department of Psychology. He is also a core faculty member of the Institute for Application of Learning Science and Educational Technology and the Center for Population Health. His research has received generous funding from the university and various public agencies.

*The final instructor will be decided by NUS Winter School.

Data Analytics

and Mathematical Statistics

In this age of ubiquitous data, how do we make sense of all this readily accessible but often overwhelming quantitative information that we encounter every day? To systematically extract insights from data? To "reason" with data? We can think of quantitative reasoning as applying a certain set of logic that allows us to work with data. The insights developed through such an application can help us to answer questions that we are invested in, to support or invalidate preconceived hypotheses, and provide evidence to advance our arguments. Through this journey of reasoning quantitatively, we will illuminate how we can both be critical consumers, as well as actively engage with, this precious resource that is data.

Reference Teaching Themes

- How to reason with data
- Cleaning and exploring our data
- Using our sample and assessing the findings
- Investigating trends and relationships
- Reviewing our quantitative analyses

* The above are teaching themes from previous years' NUS programmes, provided for reference.

Biomedicine

Science Demo Lab Epidemiology

Biomedical science is currently one of the most sought-after professions, and epidemiology plays a crucial role in global health, public health policies, and medical research, aiding humanity in better understanding and addressing the challenges posed by various diseases. This course will guide students to explore multiple topics, including cell molecular biology, bioinformatics, experimental principles, and mathematical modeling in epidemiology. They will gain insights into how viruses enter hosts and interact with host cells, the pathways of infectious disease transmission, host characteristics, and environmental factors, thereby enhancing their understanding of the current phase of epidemiology.

Reference Teaching Themes

- The foundation knowledge of cell and molecular biology
- Virus Action Research
- Mathematical Modelling of Epidemics Workshop
- Bioinformatics
- Science demonstrations

* The above are teaching themes from previous years' NUS programmes, provided for reference.

Economics Explorer: Understanding Market Forces and Economic Behavior

Students will study specialised courses in microeconomics, macroeconomics, and economic theory, gaining insights into the pivotal role of the social market system in balancing the continually growing demand with limited resources. By analysing real-world cases and current economic policies, students will delve deeper into the behaviours of individuals, decision-makers, and businesses within the economic framework. They will understand the overall impact of economic policies on society, and acquire knowledge about the trends in societal behaviours, resource allocation, and the development of market systems.

Reference Teaching Themes

- Economic Policies
- Microeconomics
- Macroeconomics
- Economic Theory
- The Impact of Economic Decision-Making
- Economic Choices in a Globalized Context

* The above are teaching themes from previous years' NUS programmes, provided for reference.

The Enigma of the Human Mind: Understanding Psychology and Human Behavior

Psychology is a discipline that studies human thought, emotions, and behaviour. In this course, students will explore the crucial role of cognitive processes in human behaviour, emotions, and interpersonal relationships. Through the method of dichotomous comparisons, students will differentiate fundamental concepts such as nature versus nurture, automaticity versus control, gaining an understanding of the impact of psychology on human perception, behaviour, and decision-making. Students will attempt to analyse the underlying reasons behind human behaviour using the knowledge acquired, stepping beyond.

Reference Teaching Themes

- Psychological Analysis
- Classic Theories in Psychology
- Scientific Research in the Field of Psychology
- Modern Impact of Technology on Psychology
- Truth Behind Human Thought and Behavior
- Influence of Social Networks

* The above are teaching themes from previous years' NUS programmes, provided for reference.

Sample Schedule

	9:00-12:00	14:00-17:00	19:00-21:00
Day 1	Arrival		
Day 2	National University of Singapore Course 1: Students will commence their programme for academic sessions within the NUS campus.	In-Depth Exploration of NUS Guided by interpreters, students will explore the NUS campus and the National University of Singapore Museum . Corporate Visit Students will visit One-North , a research and innovation hub in Singapore, and listen to industry veterans sharing their experiences from companies within One-North (e.g., ENDOWUS, a Singapore-based wealth management platform, and REACTOR SCHOOL, a Singapore entrepreneurship education platform).	Cultural Exploration Night Safari Singapore: The world's first wildlife park designed exclusively for nocturnal animals, housing over 2,500 animals.
Day 3	National University of Singapore Course 2: Students will commence their programme for academic sessions within the NUS campus.	Cultural Exploration Gardens by the Bay: Home to nine themed gardens showcasing ora, known for its flower displays and dazzling light shows.	
Day 4	National University of Singapore Course 3: Students will commence their programme for academic sessions within the NUS campus.	Cultural Exploration Merlion Park: Enjoy the iconic Merlion statue standing majestically at the water's edge, a symbol and hallmark of Singapore. Little India and Arab Street: Areas feature temples, restaurants, and shops that epitomize Indian and Arab cultures.	<ul style="list-style-type: none">● Individual: Complete assigned readings or homework.● Team: Discuss the theme for the group project presentation.
Day 5	National University of Singapore Course 4: Students will commence their programme for academic sessions within the NUS campus.	Cultural Exploration National Museum of Singapore: Established in 1887, with a history spanning over 130 years, it is Singapore's oldest museum.	
Day 6	National University of Singapore Course 5: Group Completion Presentations. Closing Ceremony Presentation of official completion certificates.	Cultural Exploration Sentosa Beach: Sentosa Island covers an area of 390 hectares and is divided into three crescent-shaped beaches: Siloso Beach, Palawan Beach, and Tanjong Beach. The island has a wide variety of entertainment facilities and leisure areas, creating a relaxed and laid-back atmosphere.	
Day 7	Back to China		

* The specific schedule may be subjected to slight adjustments based on actual circumstances.

2025 NUS Winter School

Application

Date: Feb.2nd – Feb.8th, 2025 (7 days)

Location: Singapore

Grade: 10 – 12

School of Continuing and Lifelong Education (SCALE)

Subjects: Data Analytics and Mathematical Statistics, Biomedicine,

Quota: 40 students per subject

Faculty of Arts and Social Sciences (FASS)

Subjects: Economics, Psychology

Quota: 30 students per subject

Requirements

- English language level equivalent to IELTS level 6.0 or TOEFL 80
- Recommendation letter from your teacher as proof of English proficiency, or a phone interview with an ASEEDER staff member
- Priority for awarded students from ASEEDER STEM assessment

Fee

- **Fee: 4115 USD**
- **Includes:** tuition, course materials, accommodation, breakfast, excursion fees; ASEEDER group leader service fee; local transportation fees; international insurance.
- **Excludes:** international transportation costs to and from Singapore (departure and arrival from Thailand), you can use a third-party service; lunch and dinner.



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Get a
jump
in knowledge
a
leap
in opportunities