



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

Asian School of the Environment
College of Science

ASIAN SCHOOL OF THE ENVIRONMENT

SCHOOL OF THE COLLEGE OF SCIENCE
UNDERGRADUATE BROCHURE



**Advancing
Knowledge For A
Thriving Planet**



OVERVIEW

04

ABOUT THE ASIAN SCHOOL OF THE ENVIRONMENT

05

OUR PROGRAMMES AT A GLANCE

06

ENVIRONMENTAL EARTH SYSTEMS SCIENCE (EESS)

- Specialisations

08

ENVIRONMENTAL EARTH SYSTEMS SCIENCE AND PUBLIC POLICY AND GLOBAL AFFAIRS (ESPP)

10

ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN SUSTAINABILITY (ESSN)

12

ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN DATA ANALYTICS (ESDA)

13

ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN ENTREPRENEURSHIP (ESET)

14

ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN FUTURE FOODS (ESFF)

16

FIELD TRIPS, EXCHANGES & INTERNSHIPS

17

STUDENT RESEARCH & TEACHING OPPORTUNITIES

18

STUDENT LIFE & CARE

- Undergraduate Club
- Mentorship Programme
- Student Care Managers
- J.E.D.I. Committee

19

CAREER & BEYOND

- Career Guidance & Prospects
- Our Alumni

20

APPLY NOW!

- Minimum Subject Requirements
- Scholarships & Financial Aid

ABOUT ASE

Advancing knowledge for a thriving planet.

The Asian School of the Environment (ASE) at Nanyang Technological University, Singapore, is a diverse school focusing on the connections between geosciences, ecology, society and Earth systems. ASE conducts cutting-edge research on pressing environmental challenges in Southeast Asia and beyond, including climate change, sea-level rise, geohazards, biodiversity conservation, environmental sustainability, and

human–environment interactions. Our integrated approach equips students and researchers to address complex global issues through science, collaboration, and innovation.

We aim to nurture the next generation of environmental leaders, scientists, and changemakers through innovative research and transformative education, focused on addressing the urgent environmental challenges facing Southeast Asia and the world.

WHY CHOOSE ASE?

Globally recognised excellence

ASE is ranked #13 worldwide for Environmental Sciences (QS World University Rankings by Subject 2026).

Passion into profession

Our graduates build meaningful careers and contribute responsibly to society.

A close-knit community

As one of NTU's smallest schools, ASE feels like family. Students enjoy strong friendships, personalised mentorship, and daily interactions with faculty in an inclusive environment.



Collaboration made easy

With approachable faculty, an open-door culture, and advanced learning spaces, ASE encourages curiosity, creativity, and bold ideas.

Learning beyond the classroom

Fieldwork and overseas opportunities bring theory to life. Our interdisciplinary curriculum blends scientific depth with practical skills to prepare you for real-world environmental challenges.

OUR PROGRAMMES AT A GLANCE

BSc (Hons) in Environmental Earth Systems Science

>>

EESS

Double Major

BSc (Hons) in Environmental Earth Systems Science and Public Policy and Global Affairs

>>

ESPP

Second Major

BSc (Hons) in Environmental Earth Systems Science with a Second Major in Sustainability

>>

ESSN

BSc (Hons) in Environmental Earth Systems Science with a Second Major in Entrepreneurship

>>

ESET

BSc (Hons) in Environmental Earth Systems Science with a Second Major in Data Analytics

>>

ESDA

BSc (Hons) in Environmental Earth Systems Science with a Second Major in Future Foods

>>

ESFF



ENVIRONMENTAL EARTH SYSTEMS SCIENCE (EESS)

Understand the Earth, change the world.

Explore the science behind our planet and the systems that shape it. This programme equips you with a strong foundation in environmental and earth system sciences, blending hands-on learning with powerful tools like spatial analysis, data science, and modern computing. With a focus on sustainability, climate change, and human-environment interactions, you'll learn in an interactive environment that nurtures critical thinking, collaboration, and communication, preparing you to tackle real-world challenges.

EESS students can broaden their expertise by pursuing a second major and/or minor.

Second Majors

- Data Analytics
- Entrepreneurship
- Sustainability
- Future Foods

Minors

Over 45 minor programmes in NTU to choose from.



SPECIALISATIONS

At the end of their first year, EESS students will choose one of three specialisations to do advanced coursework in, graduating with a

combination of technical breadth and depth that is attractive to employers:

| Specialisations | | Specialisation Core Courses |
|-------------------------------------|--|--|
| Ecology and Ecosystems | Explore the biological and ecological foundations of life. This specialisation covers biodiversity, conservation, and resilience, preparing graduates for impactful careers protecting ecosystems across Singapore and the region. | <ul style="list-style-type: none"> • Introduction to Ecology • Tropical Ecology • Plant and Animal Physiology • Principles of Heredity and Ecological Genetics • Introductory Statistics and Numerical Thinking • Experimental Design & Analysis |
| Geosciences | Study the solid Earth, its rocks, minerals, and dynamic processes shaping landscapes and climate. This track leads to careers in consulting, resource management, exploration, and graduate geological sciences. | <ul style="list-style-type: none"> • Earth Materials • Sedimentary Geology • Introduction to Geochemistry • Structural Geology and Tectonics • Introduction to Geophysics • Advanced Field Course in Geology |
| Society and the Earth System | Examine the relationship between people and the planet. Interdisciplinary courses in sociology, economics, law, and science prepare graduates for sustainability careers in policy, planning, business, and development. | <ul style="list-style-type: none"> • Coupled Human and Natural Systems • Global Environmental Politics & Governance • Resilient Urban Systems • Introduction to Ecology • Introductory Statistics and Numerical Thinking • Principles of Economics |

YOUR ACADEMIC ROADMAP

| Major Core (84-87 AUs) | Interdisciplinary Collaborative Core (ICC) (28 AUs) |
|---|---|
| Year 1: Building Strong Foundations Learn biology, chemistry, calculus, climate change, sustainability, while developing writing, scientific communication, and critical thinking skills. | |
| <ul style="list-style-type: none"> • Introduction to Scientific Writing • E2S2 Environment and Society • E2S2 Solid Earth • Climate Change • E2S2 Biosphere • Calculus for the Sciences • Introductory Biology • Foundations of Chemistry I | <ul style="list-style-type: none"> • Inquiry and Communication in an Interdisciplinary World • Ethics & Civics in a Multi-Cultural World • Design Your Life & Career • Sustainability: Human, Social, Economic & Environment • Healthy Living & Mental Wellbeing |
| Year 2: Choose Your Specialisation Deepen knowledge through tailored specialisation core courses alongside your major requirements! | |
| <ul style="list-style-type: none"> • The Physical Environments of Singapore • Introductory Field Experience • Computational Earth Systems Science • GIS and the Earth System • <i>Specialisation Core Courses</i> • <i>Major Prescribed Electives (MPE)</i> | <ul style="list-style-type: none"> • Science & Technology for Humanity • Care, Service, Learn |
| Year 3: Professional Experience & Advanced Learning Gain industry, government, or non-profit internships. Advance in your chosen specialisation with applied, hands-on learning. | |
| <ul style="list-style-type: none"> • Professional Attachment • <i>Specialisation Core Courses</i> • <i>Major Prescribed Electives (MPE)</i> | <ul style="list-style-type: none"> • Professional Preparation |
| Year 4: Specialisation & Impact Showcase expertise through advanced modules and a Final Year Project, customise electives, and graduate confidently into impactful careers or graduate study. | |
| <ul style="list-style-type: none"> • <i>Specialisation Core Courses</i> • <i>Major Prescribed Electives (MPE)</i> | <ul style="list-style-type: none"> • Fundamentals of Data Science for Earth and Environmental Systems Science • Scientific Writing for Non-Scientists |

BROADENING & DEEPENING ELECTIVES (BDES) (20 TO 23 AUs)

Choose from courses across ASE and NTU to personalise your learning.

Other ways to fulfil your BDEs:

Take a Minor:



Take a Second Major:



Take Massive Open Online Courses (MOOCs):



ENVIRONMENTAL EARTH SYSTEMS SCIENCE AND PUBLIC POLICY AND GLOBAL AFFAIRS (ESPP)



Minors
Over 45 minor programmes in NTU to choose from.

Training changemakers at the intersection of environment and policy.

This multidisciplinary double-major programme combines the strengths of environmental earth systems science with communication, public affairs, and international relations. Students gain a rigorous scientific foundation while

developing complementary skills in leadership, teamwork, and innovative problem-solving. Graduates will be empowered to become the next generation of public policy makers and sustainability leaders, equipped with the tools to address the challenges of today’s rapidly changing world.

YOUR ACADEMIC ROADMAP

| Major Core (118 AUs) | Interdisciplinary Collaborative Core (ICC) (28 AUs) |
|--|---|
| <p>Year 1: Building Strong Foundations</p> | |
| <p>Learn environmental science, climate change, and Earth systems alongside politics and public policy, while developing writing, communication, and critical thinking skills.</p> | |
| <ul style="list-style-type: none"> • Introduction to Scientific Writing • E2S2 Environment and Society • E2S2 Solid Earth • Climate Change • E2S2 Biosphere • Calculus for the Sciences • Introduction to International Relations and Foreign Policy • Fundamentals of Politics • Introduction to Public Administration and Policy • Politics of Singapore | <ul style="list-style-type: none"> • Inquiry and Communication in an Interdisciplinary World • Ethics & Civics in a Multi-Cultural World • Design Your Life & Career • Sustainability: Human, Social, Economic & Environment • Healthy Living & Mental Wellbeing |

| Major Core (118 AUs) | Interdisciplinary Collaborative Core (ICC) (28 AUs) |
|---|---|
| Year 2: Applying Knowledge across Earth, Policy, and Society Develop core skills in fieldwork, data analysis, GIS, and Earth systems, while building foundations in political theory, and environmental governance. | |
| <ul style="list-style-type: none"> • The Physical Environments of Singapore • Introductory Field Experience • Computational Earth Systems Science • GIS and the Earth System • Introduction to Political Theory • Introduction to Ecology • Global Environmental Politics and Governance • Introductory Statistics and Numerical Thinking • <i>Major Prescribed Electives (MPE)*</i> | <ul style="list-style-type: none"> • Sustainability: Human, Social, Economic & Environment • Science & Technology for Humanity • Care, Service, Learn |
| Year 3: Professional Experience & Advanced Learning Apply interdisciplinary knowledge to real-world challenges through professional attachment, advanced earth-human systems courses, data science training, and professional communication skills. | |
| <ul style="list-style-type: none"> • Professional Attachment • Coupled Human and Natural Systems • Resilient Urban System • <i>Major Prescribed Electives (MPE)*</i> | <ul style="list-style-type: none"> • Professional Preparation • Fundamentals of Data Science for Earth and Environmental Systems Science • Scientific Writing for Non-Scientists |
| Year 4: Specialisation & Impact Showcase expertise through advanced modules or a Final Year Project, customise electives, and graduate confidently into impactful careers or graduate study. | |
| <ul style="list-style-type: none"> • <i>Major Prescribed Electives (MPE)</i> | |

BROADENING & DEEPENING ELECTIVES (BDES) (2 AUs)

Choose from courses across ASE and NTU to personalise your learning.

Other ways to fulfil your BDEs:

Take a Minor:



Take Massive
Open Online
Courses
(MOOCs):



ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN SUSTAINABILITY (ESSN)



Science and sustainability for a thriving future.

ESSN prepares you to tackle the world's grand challenges, from climate change and biodiversity loss to resource management and social justice. By blending environmental earth systems science with sustainability, you'll learn how ecosystems, economies, and societies interact, and how to apply this knowledge to technological innovation, policy communication, and realworld solutions. With

ESSN, you will graduate ready to drive change, safeguard our planet, and create impact for current and future generations.

On top of the EESS major course requirements, ESSN students will be required to read:

- At least 1 core course in each knowledge area
- Sustainability capstone project
- AND a minimum of 12 academic units (equivalent to 3-5 courses), from core and elective baskets, regardless of knowledge area

| Knowledge Area | Core Courses | Electives |
|----------------|--|--|
| People | <ul style="list-style-type: none"> • Environmental Sustainability • Environmental Issues and Sustainability • Introduction to Environmental Humanities • Animals in Chinese Cultures | <ul style="list-style-type: none"> • Resilient Urban Systems • Advanced Studies in Literature & Culture: Ecocritical Approaches to Literature • Animal Behaviour • The Environmental and Cultural Production • Art and Ecology Workshop • Chinese Ecological Thoughts and Philosophy |
| Planet | <ul style="list-style-type: none"> • Natural Hazards and Society • Blue Planet: How the Ocean Works • Environmental Earth System Science • Biodiversity and Natural History of Singapore • Climate and Climate Change • Climate Change | <ul style="list-style-type: none"> • Conservation Biology and Biodiversity • Marine and Freshwater Ecology • Environmental Hydrology • Chemical Sustainability – An Asian Perspective • Introduction to Ecology • The Green Earth: Topics in Environmental History • Sea-Level Rise and Coastal Processes |

| Knowledge Area | Core Courses | Electives |
|-----------------|--|---|
| Policy | <ul style="list-style-type: none"> • Introduction to International Relations and Foreign Policy • Climate Risk Analytics • Introduction to Public Administration and Policy • Environmental Sustainability | <ul style="list-style-type: none"> • Legal and Ethical Issues in Sustainability • Environmental Management and Valuation • Global Environmental Politics and Governance • Singapore's Foreign Policy • Conservation Psychology • Food Ethics |
| Practice | <ul style="list-style-type: none"> • Marketing Sustainability for the Next Generation • Civil Engineering and Sustainable Built Environments | <ul style="list-style-type: none"> • Collective Problem Solving • Power Engineering Design • Power System Analysis & Control • Power Electronics & Drives • Environmental Degradation of Plastics • Electrical Drives and Machines • Design of Clean Energy Systems • Power Apparatus and System Protection • Modern Distribution Systems with Renewable Resource • Environmental Health and Safety Management • Smart Cities and Society • Energy Technologies for Sustainability • Environmental Sustainability and Materials • Fundamentals of Research • Power Systems and Conversion • Engineers in Society • Fundamentals of Social Science Research |
| Profit | <ul style="list-style-type: none"> • Social Entrepreneurship • Principles of Economics | <ul style="list-style-type: none"> • Enterprise Risk Management and Sustainability • Game Theory • Environmental Economics • Development Economics • Urban Economics • Singapore Economy in a Globalised World • Sustainable Finance • Behavioural Economics |

ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN DATA ANALYTICS (ESDA)

Where science meets data to solve tomorrow's challenges.

This second major programme by the College of Engineering and the College of Science equips students with a strong background in quantitative environmental earth systems science and statistics, algorithms, and data analytics. You will master techniques to visualise and communicate actionable insights, sharpen your quantitative thinking, and learn to design and manage information systems, complementing your research skills in EESS. With ESDA, you will gain the ability to bridge science and data, preparing you to tackle pressing environmental challenges with clarity, creativity, and impact.

On top of the EESS major course requirements, ESDA students will be required to read:

Core Courses

To complete 7 courses, with a minimum of 1 course per knowledge area.

| Knowledge Area | Courses |
|--------------------------------|--|
| Probability and Statistics | Probability & Introduction to Statistics |
| Linear Algebra | Linear Algebra for Scientists |
| Data Analysis/ Computing | Computational Earth Systems Science |
| Algorithms | Algorithms and Computing |
| Database | Designing & Developing Databases OR Database Systems OR Introduction to Database |
| Data Mining | Statistical Learning & Data Mining OR Artificial Intelligence & Data Mining OR Data Analytics and Mining |
| Data Visualisation/ Management | Analytics I: Visual and Predictive Techniques Big Data Management Data Visualization |

Electives | To take a minimum of 9 AUs (equivalent to 3-4 courses)

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Analytics II: Advanced Predictive Techniques • Computational Biology and Modeling • High-Throughput Bioinformatics • Molecular Modelling: Principles and Applications • Artificial Intelligence in Chemistry • Computational Earth Systems Science • Introductory Statistics and Numerical Thinking • Algorithms for the Real World | <ul style="list-style-type: none"> • Statistics-Regression Analysis • Data Analysis with Computer-Basic Optimization • Time Series Analysis • Survival Analysis • Theory of Computing • Computational Economics • Sampling and Survey • Clinical Trials • Probabilistic Methods in OR • Numerical Method and Data Analytics • Neural Network and Deep Learning | <ul style="list-style-type: none"> • Machine Learning Design & Application • Pattern Recognition & Machine Learning • Machine Intelligence • Real Time Software for Mechatronics System • Microprocessor System • Introduction to Materials Simulation • Database System Principle • Natural Language Processing • Information Retrieval • Network Science |
|--|---|--|

ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN ENTREPRENEURSHIP (ESET)

Science, sustainability, and startups: your pathway to impact.

In partnership with NTUpreneur and Nanyang Business School, ESET empowers you to tackle pressing environmental challenges with an entrepreneurial edge. You'll gain the ability to decode complex systems, transform bold ideas into ventures that matter, and immerse yourself in technopreneurship through hands-on projects and internships with startups, venture capital firms, and innovation organisations. Graduate ready to lead change in a VUCA world, combining environmental expertise with entrepreneurial vision to create sustainable solutions and drive innovation.

On top of the EESS major course requirements, ESET students will be required to read:

Core Courses

- Entrepreneurial Mindset and Technology Innovation
- Entrepreneurial Ecosystems
- Managing New Ventures
- Financing Entrepreneurial Ventures
- Professional Internship OR Overseas Entrepreneurship Programme

Electives

To take a minimum of 13 AUs (equivalent to 3-5 courses)

- Deep Dive into Entrepreneurship
- E-startups & Social Media Strategies
- Enterprise Strategy
- Business Venture Implementation
- Entrepreneurial Business Development
- Venture Capital Investment & Practices
- Design & Systems Thinking for Entrepreneurs
- Innovation & Commercialisation of Technologies
- Social Entrepreneurship
- Law of Intellectual Property & New Media
- Entrepreneurship in Medtech & Biotechnology
- Beyond the Logo: Introduction to Branding
- From Passion to Action: Six Key Steps to a Start-up!
- Making and Tinkering



ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH A SECOND MAJOR IN FUTURE FOODS (ESFF)



Innovating food for a sustainable tomorrow.

**New second major programme for intakes from AY2026 onwards!*

ESFF will equip you with the foundation and practical tools to design sustainable food solutions and systems, reduce waste, and strengthen food security for the earth.

Through NTU’s strong partnership with Wageningen University & Research (WUR), ESFF equips you with environmental earth systems science expertise alongside cutting-edge knowledge in food technology and nutrition. You’ll explore modern farming practices, sustainable food systems, emerging food sources, supply chain management, and nutrition security. Students can choose to complete their electives through a semester exchange abroad at WUR or at NTU, gaining flexibility and global exposure.

Core

- Food Standard
- Food Safety & Risk Assessment
- Future Foods
- Introduction to Advanced Meat Alternatives
- Food Process Technologies and New Production Systems
- Data Analytics in Food Systems
- Food Chemistry & Nutrition



On top of the EESS major course requirements, ESFF students will be required to read:

| Electives | Elective Track 1 | Elective Track 2 |
|-----------|---|---|
| | <p><i>ESFF Track 1 students will read five courses at Wageningen University & Research (WUR) and at least one NTU elective in Track 2.</i></p> <ul style="list-style-type: none"> • Food Microbiology • Food Chemistry • Food Physics • Food Preservation Process • Food Quality Management • One course from Track 2 | <p><i>ESFF Track 2 students will read a minimum of 15 academic units (equivalent to 3 to 5 courses) from the NTU Track 2 electives list.</i></p> <ul style="list-style-type: none"> • Principles of Nutrition • Social Entrepreneurship • Synthetic Biology • Plant Biotechnology • Bioseparation • Bioanalytical Techniques • Food Industry Seminar Series • Current Topics in Analytical Chemistry • Promoting Sustainability • Environmental Issues and Sustainability • Environmental Sustainability • Analysis of Materials • Environmental Sustainability and Materials • Sustainable Development in Water Agriculture and Aquaculture • Environmental Degradation of Plastics |



FIELD TRIPS, EXCHANGES & INTERNSHIPS

The World is My Classroom.

FIELD TRIPS

At ASE, we believe that studying the environment means **stepping outside the classroom and into the field**. Field trips are the signature highlight of our programmes. These immersive journeys transform theory into lived experience, sparking curiosity and deepening your connection to the planet.

Highlight: Bali (Introductory Field Experience)

For many ASE students, the Bali field trip at the end of Year 1 is their very first time stepping into the field. It's an exciting signature experience designed to help you explore all three academic specialisations before choosing your path.

- Mount Batur: Stand on an active volcano as you learn about mapping, volcanology, and the dynamic forces shaping our planet.
- Ubud Rice Fields: Discover how land-use change affects ecosystem services and see sustainability challenges through the lens of agriculture and community.
- Padang Bai: Snorkel among coral reefs, conduct water quality sampling, and investigate the biodiversity and environmental pressures impacting coastal ecosystems.

Advanced Field Trip Courses

- Sabah, Malaysia
- Medan, Indonesia
- Australia
- Taiwan
- Local sites in Singapore

EXCHANGES

Beyond fieldwork, students can broaden their horizons through local and overseas exchange programmes, building new perspectives and networks at partner universities around the world. While many students take classes during their exchange, some also have the unique opportunity to conduct research abroad, deepening their academic experience and global outlook.

INTERNSHIPS

All NTU undergraduates complete an internship of 10–20 weeks, a chance to step into the professional world, apply your knowledge, and prepare for your career. Whether at research institutes, NGOs, government agencies, or industry partners, internships give you real-world experience, build valuable skills, and expand your network. You can secure placements through NTU or source your own, opening doors to opportunities that can lead directly to jobs after graduation. Internships make learning practical, impactful, and career-ready.



STUDENT RESEARCH & TEACHING OPPORTUNITIES



Where learning becomes discovery.

RESEARCH OPPORTUNITIES

At ASE and NTU, the world itself becomes your laboratory. Every environment offers opportunities to explore, question, and discover. We offer a range of research opportunities that let students gain hands-on research experience and work closely with faculty on real-world research problems.

Whether through short projects or extended research pathways, students develop practical skills, present their work, and build strong foundations for research-driven careers and studies:

- ES3008 (Environmental Earth Systems Science Research)
- URECA (Undergraduate Research Experience on Campus)
- ES4002 FYP (Final Year Project)
- CN Yang Scholars Programme (CNYSP) Research Experience

TEACHING ASSISTANT OPPORTUNITIES

For students curious about teaching, structured opportunities are available to gain hands-on experience as teaching assistants for undergraduate courses. Working closely with faculty, students support classes and labs while building confidence in communication and facilitation:

- ES4010 (Teaching in E2S2)



STUDENT LIFE & CARE



Building Community, Nurturing Care.

ASIAN SCHOOL OF THE ENVIRONMENT UNDERGRADUATE CLUB (ASE-C)

The ASE Undergraduate Club (ASE-C) powers student life at ASE, bringing students together through orientation, social events, wellbeing programmes, and student-led initiatives, creating a close-knit, inclusive, and lively community across cohorts!

Follow the club's activities on Instagram @aseclub.

FACULTY-STUDENT MENTORSHIP PROGRAMME

Every ASE undergraduate is supported by a dedicated faculty mentor who provides academic guidance, research advice, and career insights, helping students thrive and plan confidently for the future.

STUDENT CARE MANAGERS

ASE's Student Care Managers provide confidential support and guidance to help students navigate academic and personal challenges. They connect students to resources and ensure every student feels heard and supported.



J.E.D.I. COMMITTEE

The J.E.D.I. Committee in ASE is an independent committee that seeks to advocate for students and staff when it comes to issues of:

- **Justice:** Dismantling barriers to resources and opportunities so that all individuals and communities can participate fully.
- **Equity:** Allocating resources to ensure everyone has access to the same opportunities and recognising the advantages and barriers.
- **Diversity:** We believe our differences should be celebrated and contribute to the rich fabric of our community.
- **Inclusion:** Fostering a sense of belonging by centering, valuing, and amplifying the voices, perspectives, and styles of those who experience more barriers based on their identities.

CAREER & BEYOND

Guided Today, Ready for Tomorrow.

CAREER GUIDANCE

ASE benefits from a dedicated NTU career coach who provides personalised guidance on career exploration, skills development, and future planning. Through individual consultations, workshops, and industry seminars, students gain confidence and connect with professionals and alumni to shape their next steps.

CAREER PROSPECTS

Environment & Conservation

- Academic research
- Environmental media and journalism
- Non-government organisations and volunteer-welfare organisations such as WWF, Nature's Society, Birdlife
- International governance such as World Food Bank, UNESCO

Public Sector & Policy Making

- Foreign and domestic policy making
- Government roles in environmental planning, policy and management
- Water resource management and hydrogeology
- Teaching

Private Sector

- Natural resource exploration, extraction, and management (oil, gas, minerals)
- Environmental consulting
- Geotechnical consulting
- Geologic surveying or monitoring

Research & Academia

- Master's and PhD studies in top institutions, like Harvard, Caltech, Stanford, UCLA

Business & Sustainability

- Businesses or corporations that value technical knowledge, creative problem solving and leadership ability when dealing with changing environmental policy and the global move towards improved global sustainability practices
- Sustainability reporting

Entrepreneurship & Finance

- Firms seeking quantitative knowledge about the science that drive changes in energy markets
- Reinsurance companies relying on a balance of earth science data and policy intuition to assess long-term risk

OUR ALUMNI: ASE ALUMNI CIRCLE

Joining ASE means becoming part of a lifelong community. Through the ASE Alumni Circle, graduates, undergraduates, and faculty stay connected in a close-knit network beyond campus. Alumni support one another through industry links, research collaborations, and volunteer efforts, creating opportunities while giving back to society!



APPLY NOW!

Your journey begins here.

If you are passionate about the Earth and the environment, we encourage you to apply. Applicants must fulfil NTU's general and subject requirements, and shortlisted candidates will be invited for an interview to assess academic potential and suitability for the programme.



**For Polytechnic Diploma holders, check NTU's Interactive List of Relevant Diplomas to see if you're eligible to apply for ASE programmes.*

MINIMUM SUBJECT REQUIREMENTS

| Programmes | Singapore Cambridge 'A' Level & Polytechnic Diploma** | International Baccalaureate (IB) Diploma | NUS High School Diploma | International and Other Qualifications** |
|--|---|--|---|--|
| BSc (Hons) in Environmental Earth Systems Science (EES) | <ul style="list-style-type: none"> • H1 Level Pass in Mathematics, and • H2 Level Pass in Physics/ Chemistry/ Biology/ Economics/ Computing | <ul style="list-style-type: none"> • Mathematics at Standard Level, and • Physics/ Chemistry/ Biology/ Computer Science/ Economics at Higher Level | <ul style="list-style-type: none"> • Major CAP of 2.0 in Mathematics, and • Major CAP of 2.0 in Physics/ Chemistry/ Biology | <ul style="list-style-type: none"> • Additional Mathematics at Junior High School Level and equivalent, and • Physics/ Chemistry/ Biology/ Economics at Senior High School Level |
| BSc (Hons) in Environmental Earth Systems Science with a Second Major in Entrepreneurship (ESET) | | | | |
| BSc (Hons) in Environmental Earth Systems Science with a Second Major in Sustainability (ESSN) | | | | |
| BSc (Hons) in Environmental Earth Systems Science with a Second Major in Future Foods (ESFF) | | | | |

MINIMUM SUBJECT REQUIREMENTS

| Programmes | Singapore Cambridge 'A' Level & Polytechnic Diploma** | International Baccalaureate (IB) Diploma | NUS High School Diploma | International and Other Qualifications** |
|---|--|--|--|--|
| BSc (Hons) in Environmental Earth Systems Science with a Second Major in Data Analytics (ESDA) | <ul style="list-style-type: none"> • H2 Level Pass in Mathematics, and • H2 Level Pass in Physics/ Chemistry/ Biology/ Computing | <ul style="list-style-type: none"> • Mathematics at Higher Level, and • Physics/ Chemistry/ Biology/ Computer Science at Higher Level | <ul style="list-style-type: none"> • Major CAP of 2.0 in Mathematics, and • Major CAP of 2.0 in Physics/ Chemistry/ Biology | <ul style="list-style-type: none"> • Mathematics at Senior High School Level and equivalent, and • Physics/ Chemistry/ Biology at Senior High School Level |
| BSc (Hons) in Environmental Earth Systems Science and Public Policy and Global Affairs (ESPP) | <ul style="list-style-type: none"> • H1 Level Pass in Mathematics, and • H2 Level Pass in Physics/ Chemistry/ Biology/ Economics/ Computing, and • Good grade in General Paper/ Knowledge & Inquiry/ H1 History/ English/ Geography | <ul style="list-style-type: none"> • Mathematics at Standard Level, and • Physics/ Chemistry/ Biology/ Computer Science/ Economics at Higher Level, and • A good grade in English at Standard Level | <ul style="list-style-type: none"> • Major CAP of 2.0 in Mathematics, and • Major CAP of 2.0 in Physics/ Chemistry/ Biology, and • Good overall CAP in English Language | <ul style="list-style-type: none"> • Additional Mathematics at Junior High School Level and equivalent, and • Physics/ Chemistry/ Biology/ Economics at Senior High School Level, and • A good grade in General Paper/English at Senior High School Level |

****Applicants should have at least taken one mathematics module in pre-calculus at the Polytechnic or equivalent institution, or have engaged in relevant self-directed student learning.**

SCHOLARSHIPS & FINANCIAL AID

Support that goes further.

SCHOLARSHIPS

NTU offers a wide range of sponsored scholarships to recognise academic excellence, leadership potential, and strong co-curricular achievements. These scholarships are available to both new and current full-time undergraduate students.

Most scholarships provide full or partial tuition coverage, with some also offering living allowances, accommodation support, travel grants, and computer allowances. Some scholarships include, but are not limited to:

- NTU President Award
- Nanyang Global Scholarship
- Nanyang Merit Scholarship
- Wee Cho Yaw Future Leaders Award
- ASEAN Undergraduate Scholarship
- NTU Science and Technology Undergraduate Scholarship

Students may also apply for short-term and external scholarships, including opportunities available after enrolment for high-performing students.

NTU Honours College

The NTU Honours College is a flagship programme for high-achieving students across NTU's signature programmes, offering interdisciplinary learning, real-world problem-solving, and enhanced scholarship support.

ASE undergraduates may qualify through:

- NTU-University Scholars Programme (NTU-USP)
- CN Yang Scholars Programme

Benefits include a specially designed curriculum, overseas final-year projects, and exclusive scholarships.

FINANCIAL AID

NTU is committed to ensuring that financial circumstances do not stand in the way of a quality education. A range of financial assistance schemes is available to help with university expenses, including:

- MOE Tuition Fee Loan
- MOE Study Loan
- Government bursaries
- Donated bursaries from external partners



ASIAN SCHOOL OF THE ENVIRONMENT

NANYANG TECHNOLOGICAL UNIVERSITY
50 Nanyang Avenue
Block N2-01C-63
Singapore 639798

   @ntu_ase

 ase_undergrad@ntu.edu.sg

 www.ntu.edu.sg/ase



All information in this brochure is correct at the time of printing in February 2026.

We extend our sincere appreciation to our students and staff whose valuable contributions, perspectives, and support were instrumental in the development of this undergraduate brochure.