



**NANYANG  
TECHNOLOGICAL  
UNIVERSITY**  
SINGAPORE

College of Science

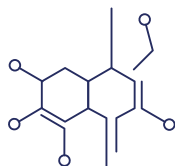
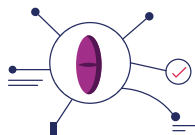
# DISCOVER SCIENCE @ NTU

Asian School Of The Environment

School Of Biological Sciences

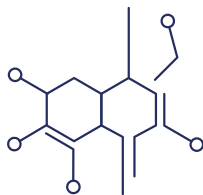
School Of Physical And Mathematical Sciences

[www.cos.ntu.edu.sg](http://www.cos.ntu.edu.sg)





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# Dean's Message

Welcome to the College of Science (CoS) at the Nanyang Technological University (NTU, Singapore). The College is home to the Asian School of the Environment, the School of Biological Sciences, and the School of Physical and Mathematical Sciences, which itself comprises the Divisions of Chemistry, Physics and Mathematics. A young and nimble institution, the College has established a leading international reputation and provides a world-class research and education environment, addressing contemporary areas of today's science.

We are a truly interdisciplinary college. Most members of our remarkable Faculty cross two or more domains – for example, we have biologists researching food science, chemists creating new materials, mathematicians making impact in computer science, physicists working in financial engineering, geoscientists working on societal impacts of climate change.

We are devoted to scholarship, advancing scientific knowledge through education and research. Our research strengths are acknowledged in international rankings, and we are leveraging our intellectual scientific strengths to address problems of major societal concern. Peaks of research excellence address sustainable Earth, global Asia, secure communities, healthy society, quantum science and future learning, all important in national and global future research strategies.

The degree programmes within the College are also known for the quality of their graduates. CoS students and graduates have gained admission to top graduate schools around the world, including Harvard, UC Berkeley, and University College London. Our graduates are highly sought by top employers such as Bloomberg, BP, Citibank, GlaxoSmithKline, Google, and Singapore Airlines.

I welcome you and invite you to visit, to discover for yourself the remarkable ecosystem of education and research that is the College of Science.

**Professor Simon Redfern**  
*Dean, College of Science*



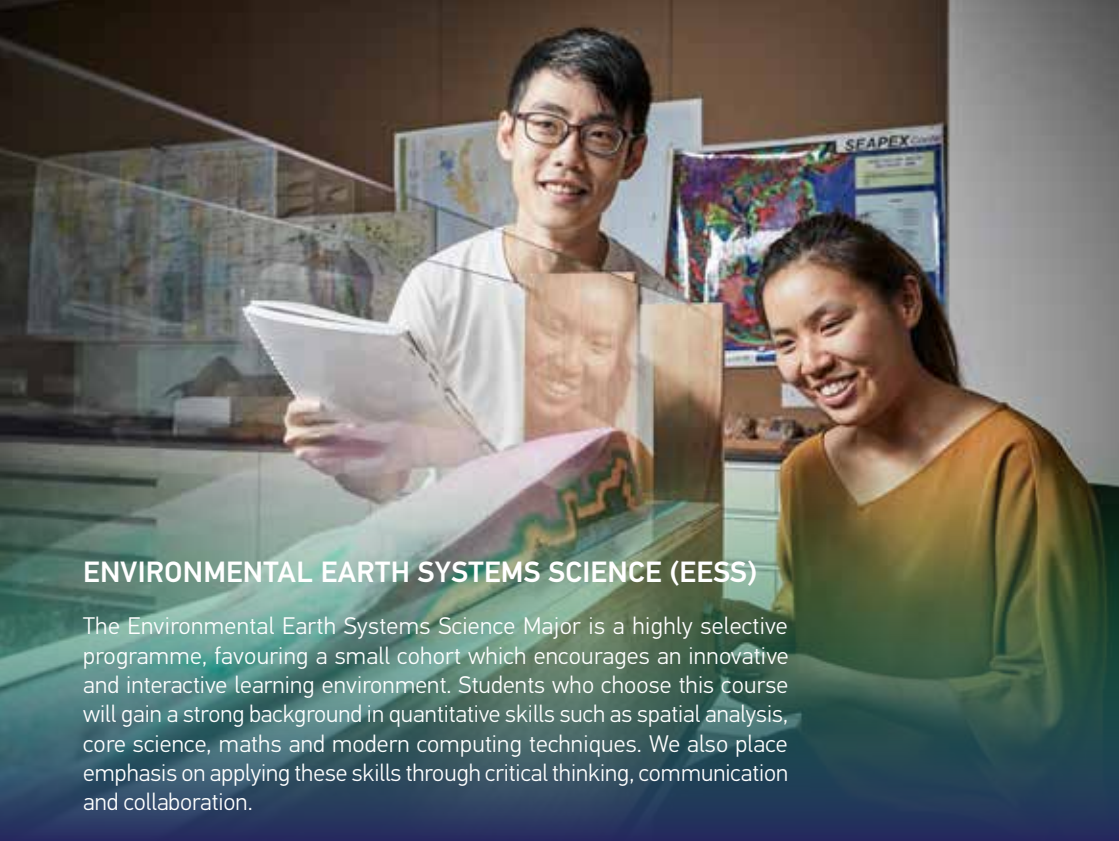


# ASIAN SCHOOL OF THE ENVIRONMENT

The Asian School of the Environment (ASE) at NTU is an interdisciplinary School and world leader in environmental research focused on Asian environmental challenges. Our School integrates earth and environmental life science, ecology, engineering and technology, human ecology, humanities, and the social sciences to address key issues of the environment and sustainability.







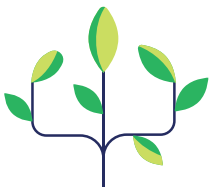
## ENVIRONMENTAL EARTH SYSTEMS SCIENCE (EESS)

The Environmental Earth Systems Science Major is a highly selective programme, favouring a small cohort which encourages an innovative and interactive learning environment. Students who choose this course will gain a strong background in quantitative skills such as spatial analysis, core science, maths and modern computing techniques. We also place emphasis on applying these skills through critical thinking, communication and collaboration.

### DOUBLE MAJOR

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

ESPP is a double major programme, combining courses from ASE and School of Social Sciences. Students admitted to this multidisciplinary course will develop a strong background in quantitative environmental earth systems science and communication, public affairs, and international relations, giving students the opportunity to build complementary skills in leadership, collaboration, and innovative problem-solving. Through this course we hope to empower the next generation of public policy makers with the tools required to face the challenges of today's rapidly changing world.



## CAREER PROSPECTS

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### Environment And Conservation

- Academic research
- Environmental media and journalism
- Non-Government Organizations and Volunteer-Welfare Organizations such as WWF, Nature's Society or Birdlife
- International Governance such as World Food Bank or UNESCO

### Private Sector

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

### 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

- Where firms seek quantitative knowledge about the science that drive changes in the energy market.
- Reinsurance companies, who rely on a balance of earth science data and policy intuition to help assess long term risk

### Public Sector

- Foreign and domestic policy
- Government roles in Environmental Planning, Policy and Management
- Water resource management or hydrogeology
- Teaching

### Postgraduate Studies

- Our graduates have gone on to Masters and PhD studies in some of the world's top institutions, including Harvard, Caltech and UCLA, studying issues such as Climate Change and Physical Science





# SCHOOL OF BIOLOGICAL SCIENCES

A cutting-edge global education in the biomedical and life sciences awaits each student in the School of Biological Sciences (SBS). Stimulating and challenging, our curriculum is designed to augment each student's capabilities and prepare them for the demands of a career in the biomedical and healthcare industries. Supported by a diverse faculty with members from over 20 countries, our students will have access to broad global perspectives from experts in the field.

At SBS, we are committed in our mission to provide a top-tier tertiary education both within and beyond the classroom. Our students are not only engaged using modern pedagogical approaches, but also provided with opportunities to participate in hands-on research and industrial internships. Students will also be able to reap the benefits of a curriculum that is constantly updated to correspond with market needs, taught by a community of research-active faculty. Furthermore, students will also

be equipped with essential data science skills, allowing them to be at the forefront of the new digital economy in Biology.

For a taste of what it means to participate in hands-on research, students can join the Undergraduate Advanced Experimental Biology workshops. There, they will learn about life as researchers, hone lab skills for their future careers, get glimpses into the latest biological advancements and more.

The implementation of a compulsory internship in the third year of study also provides students with the opportunity to obtain first-hand experience in the real world, giving them a competitive edge as they enter the workforce. Students can further sharpen their skills by attending Professional Career Development courses, working closely with the school's Career Coach and attending our monthly Alumni Career Sharing events to find out more.





## **BACHELOR OF SCIENCE (HONOURS) IN BIOLOGICAL SCIENCES**

The study of biology is highly relevant to everyday life. As the knowledge base in the biological sciences grows exponentially and technology becomes ever more sophisticated, the ability to think broadly about biology and the application of knowledge across boundaries of disciplines will inevitably become a very valuable and powerful asset in both the scientific environment and many walks of life. Our mission is to provide the support and resources you need to achieve your potential, all while celebrating the study of life. This programme will prepare you for a variety of career options, as the curriculum covers specialized and advanced topics in stem cells, cancer biology and therapy, physiology, evolutionary biology, neuroscience, amongst others. The implementation of a compulsory internship will also enhance the possibility of securing a job after graduation. Equipped with programming, computational thinking and other essential data science skills relevant to biological data, your grasp of digital literacy in your future career is also ensured.

## **BACHELOR OF SCIENCE (HONOURS) IN BIOLOGICAL SCIENCES WITH SECOND MAJOR IN BIOMEDICAL STRUCTURAL BIOLOGY**

Structural biology has gained increased importance in the biomedical field, with an growing impact on healthcare and medicine. Students of this interdisciplinary programme will undertake courses related to areas of study in structure-based discovery, structure-based vaccine design, structure-based design of biologics, structure-based design of novel biomaterials and structure-based design of protein engineering

## **BACHELOR OF SCIENCE (HONOURS) IN BIOLOGICAL SCIENCES WITH SECOND MAJOR IN FOOD SCIENCE AND TECHNOLOGY**

Conducted in partnership with the Wageningen University (The Netherlands), NTU's School of Chemical and Biomedical Engineering and School of Physical and Mathematical Sciences, this popular programme was first introduced in 2013. Students with an interest in biology and who wish to gain a greater understanding of food processes from an engineering and industrial perspective will benefit from the interdisciplinary nature of this unique programme



## **BACHELOR OF SCIENCE (HONOURS) IN BIOLOGICAL SCIENCES WITH SECOND MAJOR IN MEDICINAL CHEMISTRY AND PHARMACOLOGY**

Conducted in partnership with the Division of Chemistry and Biological Chemistry at NTU's School of Physical and Mathematical Sciences, students of this interdisciplinary programme will be cross-trained in biological sciences and chemistry, preparing them for wider career options. Providing a good foundation for students to embark on the area of chemical biology and pharmacology for research and development, students will not only be well equipped with knowledge in both disciplines, but also with the relevant skill-sets to embark on careers in biomedical and pharmaceutical research and development.

### **DOUBLE MAJOR**

## **BACHELOR OF SCIENCE (HONOURS) IN BIOLOGICAL SCIENCES AND PSYCHOLOGY**

In collaboration with the School of Social Sciences, this highly inter-disciplinary degree offers students the opportunity to specialize in two major academic disciplines from the two Schools. The programme equips students with transferrable skills of a combined education for successful careers in a rapidly changing environment.

In Singapore, the increased levels of stress encountered by its population over the years has led to a growing emphasis on mental health awareness, as well as an increased demand for professionals with an interdisciplinary training in Psychology. Students with a curiosity in areas such as human emotions, behaviors and thoughts can now adopt a more integrated approach towards understanding those very topics, as the programme offers a more consistent depth in both disciplines.



### **DOUBLE MAJOR**

## **BACHELOR OF SCIENCE (HONOURS) IN BIOMEDICAL SCIENCES AND BIOBUSINESS**

In collaboration with the Copenhagen Business School and Nanyang Business School, students will be provided a unique opportunity to be cross-trained in biomedical sciences/ biotechnology and business/management, with emphasis on the biomedical/healthcare sector in Singapore and Southeast Asia. This includes biomedical manufacturing operations management and regulatory matters relating to biomedical and healthcare industry.

Professional immersion is also an integral part of the structure of this programme: foundational knowledge and skills will be strengthened through professional internships in various business departments at multinational pharmaceutical, biotechnology and medical technology companies and local healthcare institutions. Students will then embark on a final year project in the final semester. They can fully explore and synthesize the theoretical knowledge and internship experience in a biobusiness-related project, or participate in laboratory-based biomedical science research to gain further understanding of the relevance of research and development for bio-products in the industry.

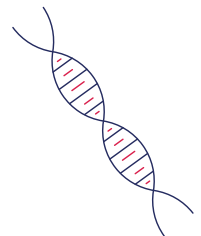


#### DOUBLE DEGREE

### **BACHELOR OF SCIENCE (HONOURS) IN BIOMEDICAL SCIENCES BACHELOR OF CHINESE MEDICINE**

This unique five-year double degree programme is an amalgamation of the western approach to Biomedical Sciences with Traditional Chinese Medicine (TCM). The Bachelor of Science (Honours) in Biomedical Sciences is conferred by NTU and the Bachelor of Medicine (Chinese Medicine) is conferred by the Beijing University of Chinese Medicine (BUCM). The first three years of the

double degree are taught at NTU, while the final two years are taught at BUCM in Beijing. This is a bilingual course with English and Mandarin as the medium of instruction. Students will learn aspects of biomedical sciences such as genetics, molecular & cell biology, immunology as well as TCM diagnostics, medications, acupuncture and moxibustion.



## NTU-DUKE-NUS MEDICINE PATHWAY

This pathway is open only to NTU School of Biological Sciences students admitted to the Double Major Programme in Biomedical Sciences and BioBusiness (BSB) or Double Major Programme in Biological Sciences and Psychology (BSPY)

The NTU-Duke-NUS Medicine Pathway provides motivated individuals the opportunity to develop their entrepreneurial aspirations in the medical field through a myriad of engagement activities.

Through the stimulating and challenging curriculum devised by the School of Biological

Sciences, graduates will be well-trained to meet the demands of the biomedical and healthcare industries, ensuring that they maintain relevance in the industry.

Successful students will graduate with a Bachelor of Science (Honours) in Biological Sciences and Psychology / Bachelor of Science (Honours) in Biomedical Sciences and BioBusiness at Nanyang Technological University (NTU), followed by a Doctor of Medicine (MD) degree at Duke-NUS Medical School.

## CAREER PROSPECTS

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As a life sciences graduate from SBS, you will have a good variety of career options ahead of you. A career as a medical doctor, veterinarian or research scientist, amongst others, are popular routes taken by our graduates.

Our graduates are well sought after in hospitals, research institutes, government agencies and forensic departments in the public sectors. Commercial sectors have also actively sought out our life sciences graduates, with offers from the pharmaceutical, biotechnology, food, water and agriculture industries for positions such as process engineers, biotechnologists, QA specialists and clinical researchers.

There is also a great demand for life sciences graduates to contribute to the public understanding of science as journalists, scientific writers and information/ liaison officers. In financial and legal sectors analysts with life science knowledge are necessary for risk assessments, and filing patents for molecular biology and biotechnology used for drug and medical applications. There is also the option of undertaking a postgraduate qualification with the National Institute of Education (NIE) for entry into the teaching profession.



Graduates with a Double Degree in Biomedical Sciences and Chinese Medicine are well positioned to consider careers in both life sciences/ biomedical sciences and the Chinese Medicine industry. A large majority of the graduates are employed as Chinese Medicine Physicians (subject to passing the Singapore Chinese Medicine Practitioners' Board Exam) as well as in management and administration positions in healthcare organizations and clinics. Other graduates have also chosen to pursue further postgraduate qualifications such as a Masters in Chinese Medicine, or as PhD students in research at local universities.



## HEALTHCARE

Eu Yan Sang, Jurong Health, Kin Teck Tong Clinic, KK Women's & Children's Hospital, Singapore General Hospital, Tan Tock Seng Hospital

*E.g. Acupuncturist, Clinical Researcher, Healthcare Operations Executive, Hospital Executive, Management Associate, Pharmaceutical Sales, Physician, etc.*

## BIOMEDICAL & PHARMACEUTICAL

Amgen, GlaxoSmithKline, Johnson & Johnson, Lonza Biologics, Novartis Biopharma Operations

*E.g. Clinical Researcher, Manufacturing Biotechnologist, Process Engineer, QA Specialist, Research & Development Officer, Validation Engineer, etc.*

## PUBLIC SECTOR

Agency for Science, Technology and Research (A\*STAR), Genome Institute of Singapore (GIS), Institute of Molecular & Cell Biology (IMCB), KK Women's & Children's Hospital, Ministry of Education, Ministry of Health, National Environment Agency, Singapore Police Force, SingHealth

*E.g. Forensic Specialist, Gynaecologist, Health Policy Analyst, Laboratory Management, Project Officer, Research Officer, etc.*

## BANKING, FINANCE & LEGAL

Bank of America Merrill Lynch, Citibank, DBS Bank, Deloitte & Touche, Drew & Napier LLC, Moody's Singapore

*E.g. Fixed Income Trader, Management Associate, Patent Officer, Relationship Management, Risk Consultant, Tax Consultant, Vice-President, etc.*

## ENTREPRENEURS

Aitreat, Archisen, Bio30 Technologies, BlazeRidge, In Vitro Pte Ltd, TCMTREND E.g. Owner of Bio JD Printing Company, Owner & Physician of TCM Clinic, etc

## POSTGRADUATE STUDIES

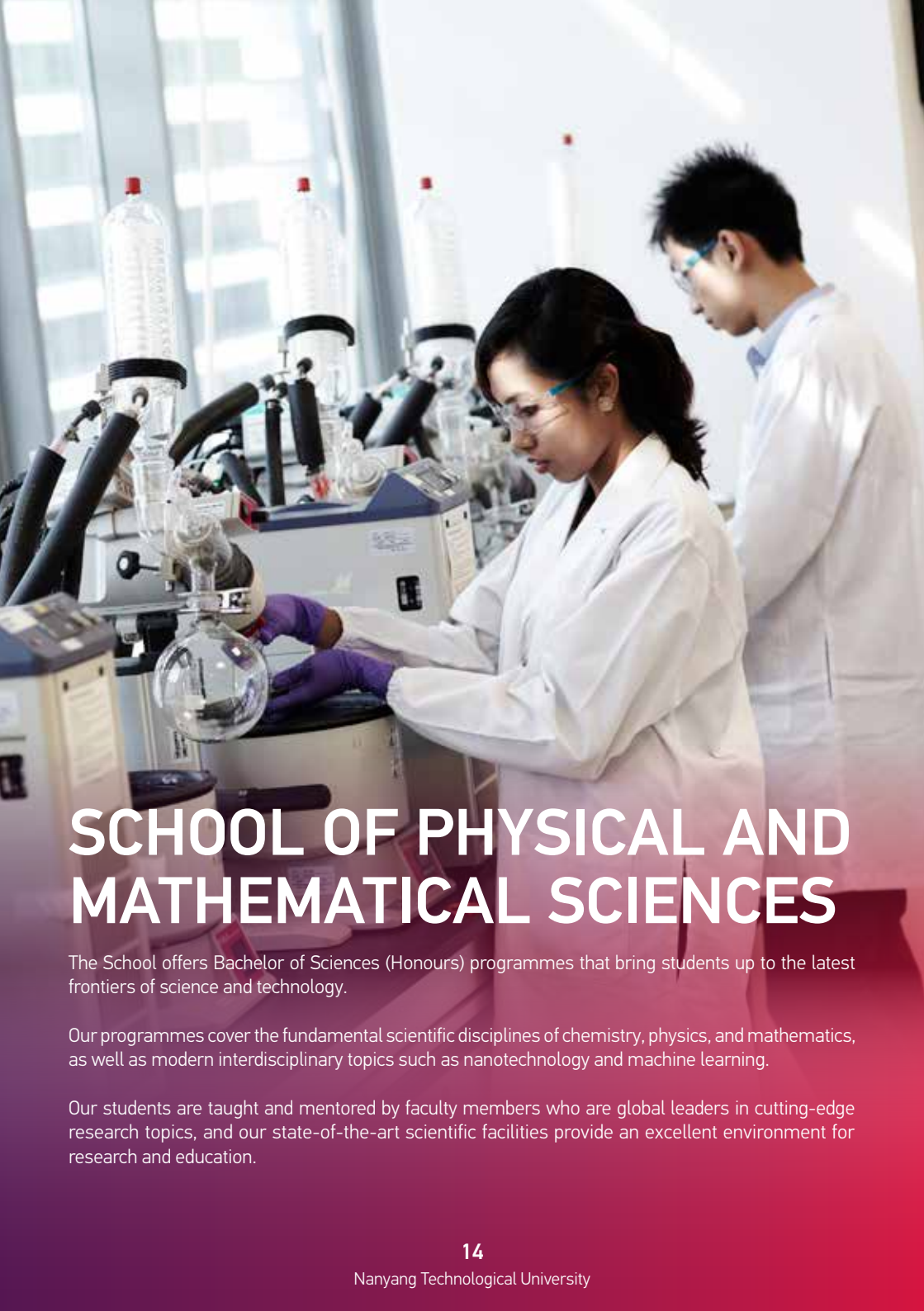
Cambridge University, Duke-NUS Medical School, Karolinska Institutet, Nanyang Technological University, University of Edinburgh

*E.g. Medical Student, MSc & Ph.D Student, etc.*

## OTHERS

*E.g. Communication Accounts Executive, Marketing Associate (Events), Scientific Journalist, Scientific Writer Service Executive, etc.*





# SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES

The School offers Bachelor of Sciences (Honours) programmes that bring students up to the latest frontiers of science and technology.

Our programmes cover the fundamental scientific disciplines of chemistry, physics, and mathematics, as well as modern interdisciplinary topics such as nanotechnology and machine learning.

Our students are taught and mentored by faculty members who are global leaders in cutting-edge research topics, and our state-of-the-art scientific facilities provide an excellent environment for research and education.

## **BACHELOR OF SCIENCE (HONOURS) IN CHEMISTRY AND BIOLOGICAL CHEMISTRY**

Students are offered a direct honours programme that satisfies the American Chemical Society curricular guidelines for a rigorous professional education in chemistry. In addition to the core contents, students may also opt for concentrations in areas of Food Science and Technology, and Medicinal Chemistry. Plenty of enrichment cross-discipline courses are also available, such as Forensic Science, Impact of Chemistry on Society, History of Chemistry and many more.

**\*NEW!**

## **BACHELOR OF SCIENCE (HONOURS) IN CHEMISTRY AND BIOLOGICAL CHEMISTRY WITH SECOND MAJOR IN BUSINESS (INTERNATIONAL TRADING)**

This highly interdisciplinary programme offered in partnership with the Nanyang Business School (NBS) and the Centre of Excellence International Trading (CEIT), aims to equip students with business knowledge and competencies that are relevant to the chemical industry. Students from this second major programme will also pick up valuable soft skills and knowledge in management, business, and international trading. These sets of skills, together with their technical expertise in chemistry, will give them a competitive advantage and uniquely position them to undertake executive roles in the chemical industry.



## **BACHELOR OF SCIENCE (HONOURS) IN CHEMISTRY AND BIOLOGICAL CHEMISTRY WITH SECOND MAJOR IN FOOD SCIENCE AND TECHNOLOGY**

The Food Science and Technology Second Major programme is a collaboration between NTU and the prestigious Wageningen University (WUR) from the Netherlands, whose Food Technology programme is considered one of the best and most innovative in Europe. The programme builds upon three of NTU's existing BSc/BEng programmes. Apart from the degree, students will also be awarded a joint certificate from NTU-WUR upon graduation.

## **BACHELOR OF SCIENCE (HONOURS) IN CHEMISTRY AND BIOLOGICAL CHEMISTRY WITH SECOND MAJOR IN ENVIRONMENTAL SCIENCE**

An interdisciplinary programme between SPMS, the Asian School of Environment (ASE) and the School of Civil and Environmental Engineering (CEE) that incorporates existing courses in Chemistry and Biological Chemistry (SPMS), Environmental Earth Systems Science (ASE), and Environmental Management (CEE).



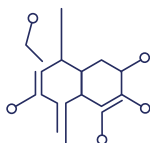
## CAREER PROSPECTS

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Chemistry graduates can find ready employment in a wide range of chemical-related industries in Singapore and overseas. These include the biomedical and pharmaceutical industries, the petrochemical industries, polymer/paint/semiconductor industries and the food and beverage industry. A\*STAR Research Institutes and other public sector agencies such as the Health Sciences Authority and DSO National Laboratories are also eager employers. Many chemistry graduates have chosen a career in education taking up the remarkable role of an educator, shaping the minds of the next generation.

## BACHELOR OF SCIENCE (HONOURS) IN PHYSICS

The Physics degree equips students with the analytical, computational, and experimental skills for working at the frontiers of science and technology. Emphasis is placed on fundamental theories and concepts, with courses in advanced quantum mechanics, condensed-matter physics, particle physics, computational physics, and more. Students may also opt for a course concentration in Nanotechnology.



## BACHELOR OF SCIENCE (HONOURS) IN APPLIED PHYSICS

Applied Physics is a discipline that specializes in finding technological applications for the latest discoveries in physics. Students majoring in Applied Physics are exposed to cutting-edge topics such as nanotechnology, microfluidics, photonics, plasmonics, and laser physics. Students may also opt for course concentrations in Nanotechnology, Optical Technology, Semiconductor Technology, or Biophysics.

## BACHELOR OF SCIENCE (HONOURS) IN APPLIED PHYSICS WITH SECOND MAJOR IN MICROELECTRONICS ENGINEERING

With the vision to transform Singapore into a smart nation, there is a great demand for sensors of all kinds: optical sensors, motion sensors and so on. The underlying technology of these sensors is semiconductor technology. The program is launched in partnership with the School of Electrical and Electronic Engineering (EEE) and the College of Engineering (CoE). The programme was launched in AY2020-21 and it aims to attract good students interested in applications of microelectronics technology with a deep physical understanding of the technology. Students who graduated from this programme can be employed to work on jobs in at least 2 key enablers of the Smart Nation Initiative.



#### DOUBLE MAJOR

### BACHELOR OF SCIENCE (HONOURS) IN PHYSICS AND MATHEMATICAL SCIENCES

Intended for students interested in research careers requiring strong computational and problem-solving skills or students pursuing postgraduate degree in Physics and Mathematical Sciences. The curriculum equips students an understanding of physical world through mathematical rigour and insights. It covers courses at the interface of Physics and Mathematics such as Differential Geometry, Algebraic Topology, Quantum Mechanics, General Relativity.

#### CAREER PROSPECTS

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Physics and Applied Physics graduates have a wide range of career choices. Our curriculum emphasizes creativity, active collaboration and effective communication, along with exposure to research and work attachments. Our graduates have gone on to careers with semiconductor companies, optics and scientific equipment manufacturers, telecommunications companies, quantitative finance firms, research and development (R&D) institutes, academia, and education

### BACHELOR OF SCIENCE (HONOURS) IN MATHEMATICAL SCIENCES

This programme offers a good mix of fundamental, as well as the applied, computational, and the industrial aspects of Mathematics and Statistics. Students undergo 18 months of foundational courses; thereafter they will choose their specialisations either in the Statistics stream, the Pure Mathematics stream the Applied Mathematics stream or the Business Analytics stream. The emphasis of this degree lies in breadth, flexibility and relevance.

### BACHELOR OF SCIENCE (HONOURS) IN MATHEMATICAL SCIENCES WITH MINOR IN FINANCE

The use of mathematical methods has now become widespread in all areas of finance and economics, and the Minor in Finance in addition to a Major in Mathematical Sciences is designed to respond to this demand and to give an edge to the mathematics student. This Minor is offered by the Nanyang Business School (NBS), exclusively to selected Mathematical Sciences students who will be taking additional courses in Banking and Finance.

#### DOUBLE MAJOR

### BACHELOR OF SCIENCE (HONOURS) IN MATHEMATICAL SCIENCES AND ECONOMICS

This highly interdisciplinary programme, in partnership with the School of Social Sciences (SSS), shapes our students into individuals with the skills most sought-after by the financial services industry. Other than the common foundational courses, the emphasis in the later study of Mathematics will be the numerical computational and statistical methods. For Economics, quantitative techniques and the fundamental economic concepts will be emphasised. This programme provides students with strong interdisciplinary skillsets. With a strong background in statistics and economics, graduates from this programme will also find themselves well prepared for further studies in Economics.



## IN PARTNERSHIP WITH THE SCHOOL OF COMPUTER SCIENCE AND ENGINEERING (SCSE)

### DOUBLE MAJOR

## BACHELOR OF SCIENCE (HONOURS) IN MATHEMATICAL AND COMPUTER SCIENCES

This programme aims to attract top students who can master the technically demanding disciplines from both schools. Graduates from the programme are expected to either be ICT leaders and entrepreneurs in fast developing areas such as Financial Technology, Cybersecurity, and Data Analytics, or pursue postgraduate degrees in Mathematics and Computer Science related disciplines. The programme provides students with strong foundations in their two majors with core courses, and in-depth specialized training in one of four areas at the interface of Mathematical Sciences and Computer Science—Theoretical Computer Science, Cryptography and Cybersecurity, Financial Modelling, and Data Science. Finally, the programme ends with a Professional Internship and a Final Year Project.

## BACHELOR OF SCIENCE (HONOURS) IN DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

This programme equips students with strong foundation in mathematics, statistics and computer science and prepares them for a career in the rapidly expanding field of data science and artificial intelligence (AI) as data scientists or AI scientists

Students will study core courses in Mathematical Sciences and well as Computer Sciences to build up foundation and develop interdisciplinary insights. In the later part of the programme, students will deepen their understanding by reading more advanced topics such as optimization, regression analysis, high dimensional statistics, data mining machine learning and cryptography. Riding on the wealth of NTU's strong collaboration with the industry, students will also benefit from participation in internship and industry oriented research projects.





## CAREER PROSPECTS

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Mathematics graduates often play a leading role in fields as diverse as finance, IT, biotechnology, and many others. Attesting to the versatilities of mathematical training, it is very common for mathematicians to obtain jobs with titles like “Risk Analyst”, “actuary”, “Clinical Trials Manager”, “Epidemiologist” and countless others. Mathematics gives you a superb foundation for later specialization, and a set of analytical skills that would be valued by any employer.

As the demand for data science and computer science specialists is growing rapidly, DSAI and MACS graduates can expect a rewarding career as a data science expert across various sectors, ranging from government agencies such as healthcare and transportation authorities, to industry players such as e-commerce, infocomm and financial services sector.

# THRIVE AND TRANSFORM WITH NTU CAREER & ATTACHMENT OFFICE

In today's volatile, uncertain, complex and ambiguous (VUCA) world, you need to be ready to thrive and transform in a fast-evolving workplace.

The Career & Attachment Office (CAO) has excellent connections with over 3,500 global and local organisations, including MNCs, SMEs, Public Service Ministries and Agencies. CAO facilitates meaningful internships, networking events and recruitment opportunities, equipping you with relevant career skills, guidance and networks, while encouraging you to be flexible, agile and adaptable. Every year, about 5,000 students are placed both locally and overseas as part of our credit-bearing internship programmes.

Get a head start on career planning through personalised career coaching, industry-specific consultations, career skills workshops, and career experiential programmes. CAO offers a broad range of programmes and services to help you navigate an evolving workplace, including:

- Career Exploration and Coaching
- Industry-Specific Career Consultations
- Online Core Career Module by MLCPS\*
- Career and Employability Skills Workshops
- NTU PEAK Leadership Programme
- NTU EDGE Programme on Industry Projects
- Credit-Bearing Internships and Work-Integrated Education

- Industry Mentorship and Job Shadowing
- Career Fairs, Recruitment and Networking Events
- CareerAxis, Your One-stop CareerPortal

*\*Margaret Lien Centre for Professional Success (MLCPS) module aims to instil lifelong skills in you, so that you can excel in your career.*

To find out more, visit [www.ntu.edu.sg/cao](http://www.ntu.edu.sg/cao).

"I was initially very worried about not being able to find a job amidst the economic downturn. NTU Career & Attachment Office's career services have indeed equipped me with the necessary skills needed to secure interviews and ultimately, a job. The staff are very experienced and sincere in helping me. The coaching sessions, in particular, have helped me secure a job less than a month after the final exams. I highly recommend approaching CAO for help; their profound industry knowledge and experience will greatly value-add to your job search."

**Samantha Tan Ruo Yu**  
*College of Science*





# ADMISSION REQUIREMENTS

## ASIAN SCHOOL OF THE ENVIRONMENT

PROGRAMMES	MINIMUM SUBJECT REQUIREMENTS
Environmental Earth Systems Science	H1 Level pass in Mathematics and H2 Level pass in either Physics, Chemistry, Biology, Economics or Computing
Double Major in Environmental Earth Systems Science and Public Policy and Global Affairs	H1 Level pass in Mathematics and H2 Level pass in either Physics, Chemistry, Biology, Computing or Economics and a good grade in either General Paper, Knowledge & Inquiry, H1 Level History, English Literature or Geography

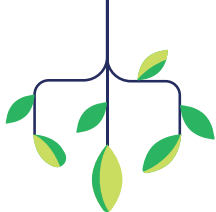
## SCHOOL OF BIOLOGICAL SCIENCES

PROGRAMMES	MINIMUM SUBJECT REQUIREMENTS
Biological Sciences	
Biological Sciences with Second Major in Biomedical Structural Biology	At least H1/SL or equivalent pass in Mathematics and a good H2/HL or
Biological Sciences with Second Major in Medicinal Chemistry and Pharmacology <sup>1</sup>	A Level equivalent pass in Physics, Chemistry or Biology
Biological Sciences with Minor in Business	
Double Major in Biomedical Sciences and Biobusiness	<sup>1</sup> H2 Level pass in Chemistry
	At least H2 or equivalent pass in Mathematics and a H2 Level or equivalent pass in Physics, Chemistry or Biology
Biological Sciences with Second Major in Food Science and Technology	OR
	At Least H1 or equivalent pass in Mathematics and two H2 Level or equivalent pass in Physics, Chemistry or Biology
Double Major in Biological Sciences and Psychology	Good H1/SL or equivalent pass in Mathematics, good H2/HL/A Level or equivalent pass in Physics, Chemistry or Biology, and a good grade in General Paper or Knowledge & Inquiry.
Biomedical Sciences/Chinese Medicine	At least H1/SL or equivalent pass in Mathematics and a good H2/HL/A Level or equivalent pass in Physics, Chemistry or Biology PLUS at least an O Level/SL or equivalent pass in Chinese Language

## SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES

PROGRAMMES	MINIMUM SUBJECT REQUIREMENTS
Chemistry and Biological Chemistry/Chemistry and Biological Chemistry with Second Major in Business (International Trading)/Chemistry and Biological Chemistry with Second Major in Food Science and Technology/Chemistry and Biological Chemistry with Second Major in Environmental Science	Good H2/HL/A Level or equivalent pass in Chemistry and either Mathematics or Physics
Data Science and Artificial Intelligence	Good H2/HL/A Level or equivalent pass in Mathematics and either Physics, Chemistry, Biology or Computing
Mathematical Sciences/Mathematical Sciences with Minor in Finance	Good H2/HL/A Level or equivalent pass in Mathematics
Double Major in Mathematical Sciences and Economics	Good H2/HL/A Level or equivalent pass in Mathematics and good grade in General Paper or Knowledge & Inquiry
Double Major in Mathematical and Computer Sciences	Good H2/HL/A Level or equivalent pass in Mathematics and either Physics, Chemistry, Biology or Computing
Physics/Applied Physics/Applied Physics with Second Major in Microelectronics Engineering/ Double Major in Physics and Mathematical Sciences	Good H2/HL/A Level or equivalent pass in Physics and Mathematics





## OFFICE OF ADMISSIONS

Nanyang Technological University  
Student Services Centre, Level 3  
42 Nanyang Avenue, Singapore 639815



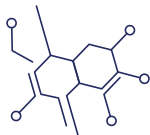
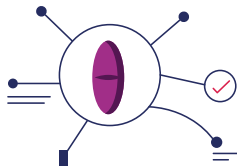
## LOCAL ADMISSIONS

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