RE-CODE YOUR DNA

School of LIFE SCIENCES & CHEMICAL TECHNOLOGY

5  Biomedical Science (N59)
9  Pharmaceutical Science (N73)
12 Landscape Design & Horticulture (N57)
15 Chemical & Biomolecular Engineering (N56)
19 Environmental & Water Technology (N74)
Your natural curiosity about the world makes you the best person to unlock the mysteries of life and create wonders of science. Start your exciting journey with the School of Life Sciences & Chemical Technology.
One Common Goal

No matter where your interest lies, our five diplomas aim to prepare you for the world of science and fuel your passion for discovery.

5 Diplomas

Life Sciences

Diploma in Biomedical Science
- An established and recognised biomedical science programme
- Options in General Biomedical Science or Clinical Laboratory Technology
- Final-year Capstone Projects and internships with renowned research institutions and organisations

Diploma in Pharmaceutical Science
- Broad-based training opens doors to a wide range of careers in clinical pharmacy and industrial pharmacy
- Learn from practising pharmacists under our unique Pharmacy Training Programme
- Internship opportunities with established healthcare providers and research organisations

Horticulture & Landscape

Diploma in Landscape Design & Horticulture
- The only diploma of its kind that combines landscape design with plant science and horticulture
- Strong partnership with the National Parks Board

Chemical & Environmental Technology

Diploma in Chemical & Biomolecular Engineering
- Versatile curriculum that integrates chemistry, physics and life sciences with engineering concepts
- Comprehensive integration of IT with physical engineering facilities
- Diverse career opportunities in the chemical industry and the fast growing pharmaceutical & biopharmaceutical industries
- Internship opportunities at internationally recognised companies or research facilities

Diploma in Environmental & Water Technology
- An established course in environmental science and technology
- Supported by the National Environment Agency and PUB, Singapore’s National Water Agency
- Widen your career choices with three additional Workforce Skills Qualification (WSQ) certificates

Find us online at www.np.edu.sg/lsct
LOOKING FOR A SCHOOL

that offers a robust education in life sciences and chemical technology? Here are seven reasons why Ngee Ann Polytechnic’s School of Life Sciences & Chemical Technology (LSCT) is one of the most reputable institutions in Singapore.

**Top lecturers**
All of our lecturers hold postgraduate qualifications, and are well equipped with rich research and industry experience.

**Strong partnerships**
We have close links with organisations such as the National University Hospital, National Parks Board and PUB, Singapore’s National Water Agency. Our strong partnerships will provide you with lots of opportunities to learn in a real-world setting.

**Global exposure**
You will gain a global perspective by participating in various overseas internships and immersion programmes to places such as London, Brisbane, Bangkok, Chongqing, Hong Kong, Nanning, and Shanghai.

**Mentorships**
With our Industry Mentors’ Network and Education & Career Guidance programmes, you can count on industry practitioners as your mentors and lecturers as your advisers. They will offer real insights about the industry and coach you in your career choice.

**The edge in R&D**
Besides having one of the most extensive polytechnic research programmes in Singapore, we are also known for our expertise in areas such as aquatic science, biocatalysis, cancer biology, membrane technology, fermentation, molecular diagnostics, food technology and sky-rise greening. Our edge will give you a head start in pursuing research work in these fields!

**Proven track record**
Our graduates have completed their degrees at top universities around the world. Some have even clinched prestigious PSC, PUB, MOHH, NEA and A*STAR scholarships. In addition, 18 NP graduates have made it to the National University of Singapore’s Yong Loo Lin medical school since 2007. In 2016, we also produced our first NP graduate to enter Nanyang Technological University’s Lee Kong Chian medical school.

**More options**
Thanks to our broad-based curriculum, you can pursue a wide range of careers and degrees after graduation.
Our graduates with that something XTRA

“The BMS course provided a firm foundation for me to understand the scientific background in clinical trial protocols. It played a significant role in deciding my career path and helped me secure my first two jobs at pharmaceutical MNCs.”

Sylvia Chiang  
**Diploma in Biomedical Science, Class of 2007**  
As a Senior Clinical Research Associate and Cluster Training and Compliance Manager at Novartis Asia Pacific Pharmaceuticals Pte Ltd, Sylvia specialises in monitoring early phase oncology clinical trials.

“The PHARM course, with its broad curriculum and clinical attachments, has provided me with valuable experiences and deepened my passion to serve in the healthcare sector.”

Ang Wei Jie  
**Diploma in Pharmacy Science*, Class of 2019**  
Wei Jie was a recipient of the Lee Kuan Yew Award and Ngee Ann Polytechnic Outstanding Achievement Award. He will be pursuing a degree in Pharmacy Science at the National University of Singapore.  
*now renamed as Diploma in Pharmaceutical Science*

“The LDH course covers various fields of studies and is a fantastic stepping stone to progress into extensive career options that include landscape design, horticulture and urban planning.”

Soh Xian Hui  
**Diploma in Landscape Design & Horticulture, Class of 2016**  
Xian Hui clinched two awards in the Singapore Institute of Landscape Architects Student Design Award 2015 competition. She is currently reading Architecture at NUS School of Design & Environment.

“CBE has exposed me to different aspects in the “chemical world”. It has given me a solid foundation to pursue the Earn and Learn Programme, which allows me to build my experience as a working professional, while completing my advanced diploma.”

Amira Yasmine Bte Sabar  
**Diploma in Chemical & Biomolecular Engineering, Class of 2017**  
Amira Yasmine is currently completing her Advanced Diploma in Chemical Engineering under the Earn and Learn Programme*. She is also working as a process technician at Shell Eastern Petroleum.  
*now renamed as SkillsFuture Work-Study Programme*

“My journey in NP has been nothing short of amazing. Multiple overseas programmes have deepened my knowledge about environmental issues. I hope to play a key role in solving water pollution problems in the future.”

Yao Yupeng  
**Diploma in Environmental & Water Technology, Class of 2018**  
Yupeng will be pursuing a degree in Civil Engineering at the National University of Singapore.
DIPLOMA IN ENVIRONMENTAL & WATER TECHNOLOGY

- An established course in environmental science and technology, supported by PUB and NEA
- Work with scientists and engineers on exciting industry-based projects at our Centre of Innovation in Environmental & Water Technology
- Apply for a bond-free PUB Scholarship that comes with an internship placement
/ WHAT THE COURSE IS ABOUT /
A growing world population and climate change are set to bring about the need to increase water supplies. Be at the frontline to combat environmental challenges when you join the Diploma in Environmental & Water Technology (EWT). Jointly developed with PUB, Singapore's National Water Agency, this diploma will equip you with a firm grounding in the key areas of water technology, waste management and resource conservation, as well as pollution monitoring and control.

In your first year, you will be introduced to basic concepts of environmental science, engineering and technology with modules such as Fundamental of Engineering Principles, Environmental Microbiology & Biotechnology and Hydraulics. You will also learn basic data analysis and technical drawing skills in the module Data Analytics & Drafting. From the second year onwards, you will learn in-depth modules in various aspects of environmental engineering and water technology, such as air and water quality monitoring & control.

In your final year, you will work on an environmental innovation & research project and go on a six-month internship. You can opt for hands-on learning opportunities at our Centre of Innovation in Environmental and Water Technology (COI-EWT) and work alongside research engineers and scientists on industry-based projects.

With additional Workforce Skills Qualification (WSQ) Certificates in Noise Monitoring, Industrial Noise Control and Risk Management, you can look forward to better job prospects in the industry.

/ WHAT YOU WILL LEARN /

YEAR 1
- Data Analytics & Drafting
- Engineering Mathematics I & II
- Environmental Microbiology & Biotechnology
- Fundamental of Engineering Principles
- Hydraulics
- Inorganic & Physical Chemistry
- Solid & Hazardous Waste Management
- Career & Professional Preparation I
- Health & Wellness*
- Innovation Made Possible*
- Communication Essentials*
- English Language Express**

YEAR 2
- ABC Waters Management
- Air Quality Monitoring & Control
- Civil Engineering Fundamentals
- Environmental Laboratory II
- Environmental Management Systems
- Noise Monitoring & Control
- Water & Environmental Chemistry
- Water Pollution & Reclamation Technology
- Water Supply Technology & Design
- Workplace Safety & Health
- Career & Professional Preparation II
- World Issues: A Singapore Perspective*

YEAR 3
- Environmental Innovation & Research
- Environmental Laboratory III
- Industrial Wastewater & Membrane Technology
- Internship
- Project ID: Connecting the Dots*

* Interdisciplinary Studies (IS) modules account for up to 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

** For selected students only.

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.
CAREER

You will be ready for careers in government agencies, multinational corporations, university laboratories and research institutes. The EWT course provides you with the foundation and flexibility to work in the various sectors ranging from chemical, environment to civil and workplace safety & health. Additional WSQ certificates will also qualify you for jobs such as a Noise Monitoring or Noise Control Officer.

FURTHER STUDIES

You can pursue a wide range of degree programmes offered by National University of Singapore, Nanyang Technological University, Singapore Institute of Technology, Singapore Management University, Singapore University of Technology and Design and Singapore University of Social Sciences. These include degree courses in architecture, chemistry, civil engineering and environmental engineering.

You may enjoy exemption when you apply for related degree programmes at overseas universities, including:

- Murdoch University (Australia)
- University of Adelaide (Australia)
- University of New South Wales (Australia)
- University of Queensland (Australia)
- University of Western Australia (Australia)
- Newcastle University (UK)
- University of Birmingham (UK)
- University of Manchester (UK)

You can also deepen your skills and further your career by enrolling in the following post-diploma courses offered by Ngee Ann Polytechnic:

- Advanced Diploma in Medical and Pharmaceutical Technology
- Specialist Diploma in Analytical Sciences*
- Specialist Diploma in Sustainable Facilities Management*

* Offered under SkillsFuture Work-Study Programme

ENTRY REQUIREMENTS

AGGREGATE TYPE ELR2B2-C

To be eligible for consideration, candidates must have the following GCE ‘O’ Level examination (or equivalent) results.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>‘O’ LEVEL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language</td>
<td>1-7</td>
</tr>
<tr>
<td>Mathematics (Elementary/Additional)</td>
<td>1-6</td>
</tr>
<tr>
<td>Science</td>
<td>1-6</td>
</tr>
<tr>
<td>[with Physics, Chemistry or Biology component]</td>
<td></td>
</tr>
<tr>
<td>or Biotechnology</td>
<td></td>
</tr>
<tr>
<td>or Combined Science</td>
<td></td>
</tr>
<tr>
<td>or Computing/Computer Studies</td>
<td></td>
</tr>
<tr>
<td>or Design &amp; Technology</td>
<td></td>
</tr>
<tr>
<td>or Electronics/Fundamentals of Electronics</td>
<td></td>
</tr>
<tr>
<td>or Engineering Science</td>
<td></td>
</tr>
<tr>
<td>or Physical Science</td>
<td></td>
</tr>
</tbody>
</table>

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at www.np.edu.sg/admissions/Documents/ELR2B2.pdf

For students with other qualifications, please refer to the NP website for the entry requirements and admissions exercise period.

CONTACT US

For the most up-to-date information on NP’s Diploma in Environmental & Water Technology, log on to www.np.edu.sg/ewt

During my final year, I developed a solar-powered water drone to remotely measure water parameters and transmit the readings to a cloud-based server, in collaboration with a student from the School of Engineering. I am thankful for the guidance from my lecturers, which greatly helped our group to apply our knowledge and come up with the best solution.

HO JIA LE
DIPLOMA IN ENVIRONMENTAL & WATER TECHNOLOGY, CLASS OF 2017

Jia Le received the National Environment Water (NEW) scholarship to study at the University of Bath.