VISION
A great global engineering college for education, research and innovation.

MISSION
To nurture creative and entrepreneurial leaders through broad-based, research-infused engineering education, advance knowledge and create innovative and sustainable solutions for the benefit of industry and society.

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What is Engineering?
Engineering is the application of mathematical, scientific, economic, social and practical knowledge to solve problems to improve the world around us.

Why Engineering?
Engineers make a DIFFERENCE to the world we live in, through new and enhanced solutions that improve lives and environment.

Engineering education equips you with knowledge and skills that are highly transferable across all sectors.

Engineers are in growing demand.1, 2

2 “Singapore’s long game in innovation,” The Straits Times, August 2017.
TOP REASONS
to choose NTU College of Engineering

World Leader in Engineering Education and Research
6
internationally-renowned engineering schools ranked in the world’s TOP 22* by subject

Global Exposure
8 in 10 students undergo overseas immersion at least once during their studies

Multidisciplinary and Well-rounded Curriculum

Internationally-renowned Faculty and World-class Research and Learning Facilities

Robust Professional Internship and Attachment Programmes
Gain real-world and professional experience at companies like Rolls-Royce and BMW

Exciting Student Life
Over 100 student clubs to cater to diverse interests

Vibrant Campus Life
2-Year Residential Living guaranteed for all freshmen
Wide variety of F&B options and comprehensive retail and service stores

Experiential Learning Opportunities
Numerous opportunities such as the Undergraduate Research Experience on Campus (URECA) and other International/National-level competitions to stretch the potential of students
Making and tinkering spaces for students to explore and create

* Academic Ranking of World Universities (ARWU) for the field of Engineering/Technology and Computer Sciences 2016, published by Shanghai Ranking Consultancy
* QS World University Rankings by Subject 2017
**Programmes at a Glance**

NTU College of Engineering offers a broad-based and multidisciplinary curriculum which integrates engineering with arts, humanities, business and social sciences. We equip students with not only technical knowledge but also analytical, problem-solving, entrepreneurial and communication skills that are highly valued and sought after by employers.

Students can choose from 13 single degree programmes. In addition, students can also read a minor, second major or double degree.

### Second Majors

<table>
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<th>Single Degrees (Direct Honours)</th>
<th>Second Majors</th>
<th>Double Degrees</th>
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<td>CEE</td>
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<tr>
<td>Civil Engineering*</td>
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<td>Environmental Engineering*</td>
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<td>Maritime Studies*</td>
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<td>EEE</td>
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<tr>
<td>Electrical and Electronic Engineering*</td>
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<tr>
<td>Information Engineering and Media*</td>
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<tr>
<td>MAE</td>
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<tr>
<td>Aerospace Engineering*</td>
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<tr>
<td>Mechanical Engineering*</td>
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<td>MSE</td>
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<tr>
<td>Materials Engineering*</td>
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<td>Bioengineering*</td>
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<td>SCBE</td>
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<tr>
<td>Chemical and Biomolecular Engineering*</td>
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<td>Computer Engineering*</td>
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<td>Computer Science*</td>
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<td>SCSE</td>
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<tr>
<td>Data Science and Artificial Intelligence*</td>
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* Bachelor of Engineering Programme

All Bachelor of Engineering programmes are accredited by the Institution of Engineers Singapore, the Singapore signatory of the Washington Accord, through its Engineering Accreditation Board. The Washington Accord is an international agreement for mutual recognition of the substantial equivalence of engineering academic programmes in satisfying the academic requirements for the practice of engineering at the professional level.

* Bachelor of Science Programme

### Minors

In addition to their single degree, students are also able to pursue a minor to broaden their knowledge and skills, beyond what their major disciplines may provide. Students can choose from over 35 minor programmes such as Computing and Data Analysis, Entrepreneurship, Finance, Life Sciences, Linguistics and Multilingual Studies, Public Policy and Global Affairs, Psychology, Sociology, etc.

For the full list of minor programmes available, please refer to: [www.coe.ntu.edu.sg/Minor_Programme](http://www.coe.ntu.edu.sg/Minor_Programme)

### Second Major in Business

Jointly offered by the College of Engineering and Nanyang Business School, this programme equips students with soft skills in management and leadership inherent to Business studies, in addition to the technical competencies of their Engineering or Maritime Studies major. Students can choose from any of the 6 Business Major tracks below:

- Accounting
- Banking and Finance
- Business Analytics
- International Trading
- Marketing
- Operations Management

Please refer to the following for more information.

- Engineering in a chosen major with a Second Major in Business: [www.coe.ntu.edu.sg/EngBizMajor](http://www.coe.ntu.edu.sg/EngBizMajor)
- Maritime Studies with a Second Major in Business: [www.coe.ntu.edu.sg/ms](http://www.coe.ntu.edu.sg/ms)
Second Major in Food Science and Technology

The programme is a collaboration between NTU and the prestigious Wageningen University from the Netherlands, whose Food Technology programme is one of the best and most innovative in Europe. Five core courses will be taught by the faculties from Wageningen University with coordinators at NTU. Students will be at the forefront of resolving current and future challenges in food security for Singapore and beyond. These include system integration for enhanced food production, novel technologies for food waste reduction and conversion, food nutrition for an ageing population, as well as risk analysis and management in food safety. This Second Major will open up myriad career opportunities in food industries including multinational corporations, government regulatory agencies, research institutions and local organisations.

For more information on the programme, please refer to: www.coe.ntu.edu.sg/MedBio

Second Major in Pharmaceutical Engineering

Students in this programme will acquire specialised knowledge in drug design and development. They will also have opportunities to work with leading biopharmaceutical companies to gain first-hand experience in drug design and development. This programme prepares students for exciting and meaningful careers in the pharmaceutical industries, spanning key sectors such as pharmacy and biotechnology, biomedical and clinical sciences, healthcare and research and development.

For more information on the programme, please refer to: www.coe.ntu.edu.sg/PE

Second Major in Society and Urban Systems

Jointly offered by the College of Engineering and College of Social Sciences, the programme offers students an insightful interdisciplinary study on contemporary urban systems. Students will appreciate understanding and develop appreciation for the rationale and processes behind the emergence, growth and evolution of the urban built environment from its natural environment. In addition to engineering and technological aspects, students will also study the social, political, economic and cultural facets of urban systems planning and policy-making. With this programme, students will be able to integrate, synthesise and develop perspectives and solutions for a sustainable urban-built environment. Graduates can look forward to broad and diverse career options in the built environment sector.

For more information on the Second Major in Society and Urban Systems, please refer to: www.coe.ntu.edu.sg/SUS

Second Major in Medical Biology

Jointly offered by the College of Engineering and College of Science, this programme combines engineering and life sciences seamlessly. Designed for candidates with special interest in biomaterials and biomedical devices field, it equips candidates with the fundamentals of medical biology, placing a special emphasis on the principles of biological science. Students also develop the skills to tackle emerging healthcare developments such as regenerative medicine. Graduates of the programme will enjoy the flexibility of choosing from a wide range of career options and roles in diverse industries, in addition to biomedical industries both locally and abroad.

For more information on the programme, please refer to: www.coe.ntu.edu.sg/MB

Double Degrees

Double Degree in Engineering and Economics

This double degree programme, jointly offered by the College of Engineering and the College of Humanities, Arts and Social Sciences, equips students with excellent knowledge and competency in engineering and economics over the programme duration of 5 years. Armed with two honours degrees – Bachelor of Engineering (Honours) in a chosen major and Bachelor of Arts (Honours) in Economics, graduates can expect wider career options in engineering and economics-related industries and beyond. Engineers who have strong economic knowledge are also better equipped for management positions as they move up the corporate ladder. To the enterprising individuals, technical prowess and a good grasp of economic principles are essential for the sustenance of free enterprises and entrepreneurship.

For more information on the double degree programme in Engineering and Economics, please refer to: www.coe.ntu.edu.sg/DDEngEcon

Double Degree in Computer Engineering/Computer Science and Business (with specialisation in Business Analytics)

A collaboration with the Nanyang Business School, these double degree programmes allow students to hone their business management skills and excel at software application or computer engineering and development skills within the typical candidate period of 4 years. Students will develop strong foundations in business and computer engineering or computer science disciplines and acquire relevant skills that are much sought after in today’s job market. At the end of 4 years, students will graduate with 2 honours degrees – Bachelor of Engineering (Honours) in Computer Engineering or Computer Science and Bachelor of Business (Honours) (with specialisation in Business Analytics). With the mix of business skills and technical knowledge, graduates can play dual roles and expect great career advancements by being IT-savvy and possessing strong business acumen.

For more information on the double degree programme in Computer Engineering/Computer Science and Business (with specialisation in Business Analytics), please refer to: www.coe.ntu.edu.sg/nbsdd
**Bachelor of Engineering (B.Eng) Programmes**

- *Mechanical Engineering***
- *Biomedical Engineering***
- *Computer Engineering***
- *Electrical and Electronic Engineering***
- *Chemical Engineering***
- *Environmental Engineering***
- *Computer Science***
- *Materials Engineering***
- *Marine Studies***
- *Engineering and Business Mgmt.***

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration (Years)</th>
<th>Minimum Subject Requirements for Admissions</th>
</tr>
</thead>
</table>

Please refer to the minimum subject requirements for respective single degree Engineering programmes stated above.

**Double Degree Programmes**

- *Bachelor of Engineering in Computer Engineering and Bachelor of Business Management***
- *Bachelor of Engineering in Chemical and Biomolecular Engineering and Bachelor of Business Management***
- *Bachelor of Engineering in Materials Engineering and Bachelor of Business Management***

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration (Years)</th>
<th>Minimum Subject Requirements for Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Eng</td>
<td>4</td>
<td>Please refer to the minimum subject requirements for respective single degree Engineering programmes stated above.</td>
</tr>
</tbody>
</table>

**Second Majors**

- *Bachelor of Engineering in Business Management and a Second Major in Business***
- *Bachelor of Engineering in Biomedical Engineering and a Second Major in Medical Science and Technology***
- *Bachelor of Engineering in Materials Engineering and a Second Major in Business***

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration (Years)</th>
<th>Minimum Subject Requirements for Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Eng</td>
<td>4</td>
<td>Please refer to the minimum subject requirements for respective single degree Engineering programmes stated above.</td>
</tr>
</tbody>
</table>

**Part-Time Bachelor of Engineering (B.Eng) Programmes**

- *Computer Science***
- *Electrical and Electronic Engineering***
- *Mechanical Engineering***

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration (Years)</th>
<th>Minimum Subject Requirements for Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Eng</td>
<td>4</td>
<td>A relevant diploma from one of the local polytechnics. Industrial polytechnic students may apply.</td>
</tr>
</tbody>
</table>

**NOTES**

1. Pass in 'O' Level Physics is only applicable to applicants who have not read H2/H1 Level Physics
2. Pass in Standard Level Physics is only applicable to applicants who have not read Higher Level Physics
3. Overall CAP of 2.0 in Physics is only applicable to applicants who have not majored in Physics
4. Pass in Junior High School Level Physics is only applicable to applicants who have not read Senior High School Level Physics
5. Applicants with only a H1 Level/O Level pass in Physics are required to read Physics A (PH1012) instead of Physics (PH1011) in Semester 1 of the first year. This course is not applicable to Computer Science, Computer Engineering and Chemical and Biomolecular Engineering.
6. This programme is also offered jointly with the College of Humanities, Arts and Social Sciences as a double degree programme with Economics.
7. This programme is also offered jointly with the College of Humanities, Arts and Social Sciences as a single degree programme with a Second Major in Society and Urban Systems.
8. This programme is also offered jointly with the Nanyang Business School as a single degree programme with a Second Major in Business.
9. This programme is also offered jointly with the Nanyang Business School as a single degree programme with Business Minor.
10. This programme is also offered jointly with the College of Science as a single degree programme with a Second Major in Medical Biology.
11. This programme is also offered as a single degree programme with a Second Major in Pharmaceutical Engineering.
12. This programme is also offered jointly with the College of Science as a single degree programme.
13. Students who are undecided on their Engineering major may opt for Engineering (i.e. Common Engineering) at the point of application. All Common Engineering students will read a semester of engineering studies after which they will be streamed into either Civil Engineering, Electrical and Electronic Engineering, Environmental Engineering, Materials Engineering or Mechanical Engineering at the end of Year 1, Semester 1. In all cases, admissions and streaming into an engineering major are merit-based.

**DIPLOMA HOLDERS**

Applicants should have a relevant diploma from one of the local polytechnics. Those with a Certificate of Merit, Diploma with Merit or Diploma with Distinction may apply for any programme in NTU regardless of the diploma.

For a list of acceptable local diplomas, please refer to: www.coe.ntu.edu.sg/PolyDiploma

**INTERNATIONAL STUDENTS**

International students must have completed at least 12 years of general education, or will be taking Year 12 national examinations in the year of application in order to be considered for admission. In addition to fulfilling the minimum entry requirements, applicants must also satisfy the minimum subject requirements.

For further details, please refer to: www.coe.ntu.edu.sg/internationalOthers

Please refer to the College’s and Schools’ websites for more information on the Second Majors and Double Degree programmes.
Clean water to homes in remote corners of the earth, renewable sources of energy and water reclamation – your field covers all these areas and much more, in addition to building bridges and other infrastructure which are key to any progressive economy. Imagine the world as you would like it to be and then take the step to make it happen.

At the School of CEE, you will find a technologically stimulating environment conducive to education and research. Through collaborations with industry partners and overseas institutions, our programmes are professionally oriented and provide opportunities to contribute to industry and society.

**Areas of Specialisation**
- Construction Technology and Management
- Environmental Engineering
- Geotechnical Engineering
- Offshore and Coastal Engineering
- Structural Engineering
- Transportation Planning
- Water Resources Engineering

**Industries and Career Opportunities**
- Airport Engineering
- Concrete and Building Technology
- Construction Management
- Fire Engineering
- Infrastructure Planning
- Land Development and Improvement
- Project Management
- Protective Engineering
- Seismic Engineering
- Transportation Planning
NTU CEE is beyond a school. It is a fraternity where family calls. Being a part of CEE’s family as an undergraduate for four years had been an amazing and fulfilling experience.

The curriculum is not only robust and holistic but also flexible. It enables me to take up electives from other schools and enriches my learning experience greatly. Beyond the curriculum, there are also many opportunities for us to immerse in different cultures and develop soft skills such as interpersonal skills.

In a nutshell, the skills and knowledge that I had acquired at NTU CEE has prepared me well for the smooth transition from university to the workforce.

Goh Jing Yaw
Class of 2017
Bachelor of Engineering in Environmental Engineering (First Class Honours)
Operations Engineer at SembCorp Utilities Ltd

Achievements
- Dean’s List, AY2013-2017
- NTU College Scholarship Holder, AY2013-2017
- Recipient of Lee Kuan Yew Gold Medal, AY2016-2017
- Koh Boon Hwee Scholarship Holder, AY2016-2017
- Winner of SembCorp Water Technology Prize Competition 2016

CEE has invented a new type of concrete that is bendable yet stronger and longer lasting than regular concrete which is heavy, brittle and breaks under tension. Named ConFlexPave, this innovation allows the creation of slim precast pavement slabs for quick installation, thus halving the time needed for road works and new pavements. It is also more sustainable, requiring less maintenance.
Be it revolutionising the way people connect through the next generation super smartphones, or creating intelligent nano-gadgets to empower industry, you will be equipped with the most relevant technological knowledge and hands-on experience.

By building on your forte in Electrical and Electronic Engineering, you empower yourself to take part in sculpting the latest innovation and shaping people's lives in the modern world.

With the mentorship from our brilliant faculty and access to our world-class equipment and modern research laboratories, you will realise your full potential as a top notch electrical and electronic engineer.
My time in NTU School of Electrical and Electronic Engineering (EEE) is nothing short of pleasant. Professors here are very engaging and inspirational in conducting their lessons. Apart from academic studies, there is also a myriad of opportunities for personal development. As a member of the EEE Leadership, Enrichment and Development (LEAD) programme, I had the opportunity to take part in various activities such as overseas community involvement programme and overseas cultural trips. Not only do these activities hone my leadership and communication skills and widen my horizons, I am also able to give back to the society and make new friends.

To sum up, it has been an eventful journey for me at NTU EEE!
As a Mechanical Engineer, you could be part of the force revving up new equipment ranging from machineries to vehicles to robots. Or, if the idea of an Aerospace Engineer excites you more, make a career in powering the aircraft and flight systems of the future.

At the School of MAE, our comprehensive and broad-based curricula will help you tap the forces that are fast transforming the world’s technological landscape: developments in robotics, nanotechnology, aerospace, and the life sciences, among others. With the guidance of the talents among our faculty and access to our state-of-the-art facilities for teaching and research, you will enjoy opportunities to accentuate your learning experiences while contributing to the development of future technologies.

You will also participate in a 20-week professional internship programme with companies as prestigious as Rolls-Royce International, and therefore relish the experience of a professional working environment and gain valuable practical experience.

Power your Future and Take Flight with us.

DEGREE PROGRAMME IN AEROSPACE ENGINEERING

This programme equips students with specialty training and tools, allowing them a seamless entry into the challenging aerospace industry. Under the Aerospace Engineering degree programme, students will acquire knowledge in areas such as Aerodynamics, Aircraft Design and Aircraft Propulsion.

Areas of Specialisation

A specialised degree that covers exciting topics such as the design and optimisation of flight vehicles and their propulsion systems.

Industries and Career Opportunities

- Aerospace Consulting
- Air Traffic Management
- Aircraft Design and Manufacturing
- Aircraft Operations and Maintenance
- Aviation Regulatory Bodies
- Defence Systems and Management
- Finance and Banking
- Project Planning and Management
- Research and Development
- Teaching
- And many other engineering and non-engineering related jobs

Power your Future and Take Flight with us.
The engineering curriculum at NTU MAE is challenging and rigorous, yet enriching and all-rounded. Students are provided with excellent opportunities to enhance not only their academic knowledge and technical skills, but also leadership capabilities and social personalities. The faculty and staff are also dedicated and helpful. My Final Year Project supervisor has played an instrumental role in shaping my personality and developing my life values through countless profound and engaging conversations, in addition to advancing my academic knowledge.

I have personally benefitted greatly from my time in NTU, be it the development of knowledge, character or lasting relationships.
If you are excited about materialising life-changing solutions, start by enrolling at the School of Materials Science and Engineering (MSE) and enter the fascinating world of materials.

One of the world’s largest and most comprehensive materials engineering institutions, MSE offers an application-oriented engineering education in advanced materials, intertwined with a global perspective. Our comprehensive and all-rounded degree programmes will equip you with the specialised knowledge and soft skills needed to succeed in the workplace.

Join us in pioneering, innovating and designing the next avant-garde materials to improve the quality of life for ourselves and the future generation.

At the core of all facets of life, materials stand firm as the pillar for all engineering fields. Whether it is to make the humble glass ‘smarter’, or to produce a biocompatible glue to replace sutures in surgery, the search for materials that transform and disrupt new technological frontiers is never ending.

DEGREE PROGRAMME IN MATERIALS ENGINEERING

Materials Science and Engineering is a confluence of chemistry, physics, biology and engineering mathematics. Here, you will master the basic structure and properties of various materials and understand how they can be designed, processed and modified to enhance their performance to suit specific needs. Building on fundamental knowledge, you will further discover and learn about nanomaterials for biomedical applications, environmental and sustainable energy applications, advanced functional materials for defence systems and sports applications, flexible and nanoelectronic materials for future smart technologies, and many more revolutionary materials applications.

Areas of Specialisation
- Industrial Materials Engineering
- Innovation and Intellectual Property
- Medical Materials
- Nanoscience and Nanotechnology

Industries and Career Opportunities
- Aerospace
- Aviation
- Banking and Finance
- Biomedical
- Defence
- Education
- Electronics
- Engineering
- Fast Moving Consumer Goods
- Food and Nutrition
- Government Agencies
- Healthcare
- Manufacturing
- Offshore and Marine
- Oil and Gas
- Pharmaceuticals
- Renewable Energy
- Research and Technology
- Semiconductors
- Technological Start-ups
DID YOU KNOW?

Fact #1
NTU MSE is ranked world number 1 in the 2018 U.S. News and World Report Best Global Universities Rankings for Materials Science. We are also the largest materials engineering institution in the world, driving science and technology to prepare you for today’s industry and the future economy.

Fact #2
At MSE, you will be exposed to a curriculum that is a vibrant blend of theory, technical competencies and soft skills. You can also expect an enriching undergraduate life where you can participate in student-led activities, hone your people skills through our Leadership Excellence Programme (LEP), or join our annual Ian Ferguson Innovation Challenge (IFIC) if you aspire to be an entrepreneur!

ALUMNA EXPERIENCE

The resources and opportunities for undergraduates are aplenty at NTU MSE. I am privileged to be given the opportunity to embark on numerous overseas exchange programmes, where I got to interact, share and exchange knowledge as well as make new friends. My internship at the Agency for Science, Technology and Research (A*STAR) was another invaluable experience. Apart from applying what I have learnt in MSE, I also picked up crucial life skills such as communication and leadership skills. As a member of the MSE’s Leadership Excellence Programme (LEP), I attended various leadership and management workshops that have honed my analytical and critical thinking skills.

NTU MSE feels like a second home to me. The professors here are nurturing and caring, they are constantly looking after our well-being and checking on our progress. To sum up, my experience at NTU MSE had been a fruitful, enjoyable and extraordinary one!

Kok Pei Rong
Class of 2017
Bachelor of Engineering in Materials Science and Engineering (Second Class (Upper) Honours) with a specialisation in Nanoscience and Nanotechnology
Supply Chain Analyst (Graduate Programme) at Orica International Pte Ltd

Achievements
Institution of Engineers Singapore (IES-SG50) Golden Jubilee Scholarship Holder, 2018
Recipient of National Youth Achievement Award (NYAA) Singapore Gold Award, 2015

DOUBLE DEGREE PROGRAMME
- Materials Engineering and Economics*

SECOND MAJORS
- Materials Engineering with a Second Major in Business*
- Materials Engineering with a Second Major in Medical Biology*
- Materials Engineering with a Second Major in Pharmaceutical Engineering*

* Jointly offered with the College of Humanities, Arts and Social Sciences
^ In collaboration with the Nanyang Business School
‡ In collaboration with the School of Chemical and Biomedical Engineering
With a robust grounding in chemical and biomedical engineering, you could be among those discovering principles of chemical engineering and life sciences to facilitate the development of safe, profitable and environment-friendly processes for the synthesis and manufacture of products from chemical/biological raw materials. If this prospect excites you and you have what it takes to realise this vision, step on the path now. The starting point is NTU's School of Chemical and Biomedical Engineering.

SCBE offers two direct honours degree programmes in Bioengineering (BIE) and Chemical and Biomolecular Engineering (CBE).

Embark on the path to innovate solutions for issues that confound medical practitioners and researchers today. You will find links to close gaps in the knowledge bank for healthcare, biomedical and chemical fields with the ultimate goal in research and medical advancements.

DEGREE PROGRAMME
IN CHEMICAL AND BIOMOLECULAR ENGINEERING

Chemical and Biomolecular Engineering (CBE) is the branch of engineering that deals with the application of physical sciences (e.g. chemistry and physics), and life sciences (e.g. biology, microbiology and biochemistry) with mathematics and economics to the process of converting raw materials or chemicals into more useful or valuable forms. In addition to producing useful materials, modern Chemical and Biomolecular Engineering is also concerned with the conversion of waste into useful materials. The CBE programme aims to produce a new generation of graduates with strong quantitative and analytical skills, as well as new skills in engineering, biotechnology, and analytical techniques.

Areas of Specialisation

- Chemical and Energy Engineering
- Electronics (Processing)
- Pharmaceutical Engineering and Biotechnology

Industries and Career Opportunities

- Biopharmaceuticals
- Food/Flavours/Fragrances
- Nanotechnology
- Petrochemicals
- Specialty Chemicals
- Trading and Finance related jobs in relevant industries
My study experience in NTU SCBE has been challenging yet enriching and exciting.

I have learnt a variety of disciplines ranging from traditional chemical engineering modules to biomolecular engineering, polymers and nanotechnology, as well as decision tools for business and engineering. I also did a semester of research at Professor Xu Rong’s laboratory, which was an eye-opening and enriching experience. Another highlight was my overseas exchange at the University of Manchester (UoM), United Kingdom, where I had the opportunity to explore a different culture and make new friends.

My Professional Internship at Shell Eastern Petroleum’s Pulau Bukom Refinery was another amazing experience and I was pleasantly surprised to receive an offer from Shell at the end of my internship.

Ma Kou
Undergraduate, Year 4
Bachelor of Engineering in Chemical and Biomolecular Engineering

Achievements
CN Yang Scholars Programme
Dean’s List, AY2014-2017
Recipient of SCBE Colours Award, AY2016-2017
NTU Science and Engineering Undergraduate Scholarship Holder, AY2014

SCBE’s research team has found a new way to treat tumours by using bubbles to deliver drugs deep into cells. This targeted treatment prevents the drug from damaging healthy cells and thus increasing the effectiveness of the treatment.

DID YOU KNOW?

STUDENT EXPERIENCE
From our transportation links to our communal spaces and the way we manage our environmental resources, technologies converge to make a positive difference. They give rise to the concept of smart cities which use digital information and communication technologies to transform urban areas into greener, more cost-efficient and generally more pleasant spaces to be in. At the same time, the evolution of connected devices – such as wearables and smartphones – means that more of us can interact within the digital architecture of where we live, work and play. It is a wave of technological advancement that is unstoppable.

By coming on board at SCSE, you can ride this wave as a computer engineer or scientist to leave a positive mark on your economy and society. You will be expanding your computer technology capacities exponentially at the same time. An acknowledged pathfinder in the field of computer engineering and computer science, SCSE has the state-of-the-art equipment to support and complement our broad-based and comprehensive degree programmes. Our stimulating environment along with our reputable faculty, will inspire you to be among an elite group of computer engineers and scientists pioneering and designing solutions to challenges ahead.

Committed to letting you tap all your capabilities and talents, we offer you a wide range of direct honours degree programmes, second majors and double degree programmes that consist of both regular projects and group work. With solid foundation, hands-on experience and topped with in-depth theoretical knowledge as well as strong analytical skills, the graduates of SCSE are assured of their marketability in any industry as the demand for quality Information Technology graduates is set to rise. Aimed at harnessing information technologies, networks and data for a better quality of life, this programme is a huge employment conduit for our graduates.

DEGREE PROGRAMME IN COMPUTER ENGINEERING

This programme is a distinctive fusion of computer hardware technologies and software engineering. Under this programme, you will be trained in both hardware and software designs as well as hardware-software integration. Graduates of Computer Engineering are highly valued and sought after in various industries for their broad knowledge in programming and digital systems, coupled with the specialised skills in software and hardware interfacing.

Areas of Specialisation
- Artificial Intelligence
- Cyber Physical System
- Cyber Security
- Data Science and Analytics
- High Performance Computing
- Networking and Mobility

Industries and Career Opportunities
- Cyber Security Industries
- Defence and Research Industries
- Enterprise Network Management
- Game Development Industries
- Hardware Development Industries
- Interactive Entertainment Industries
- Research and Development and many more

Committed to letting you tap all your capabilities and talents, we offer you a wide range of direct honours degree programmes, second majors and double degree programmes that consist of both regular projects and group work. With solid foundation, hands-on experience and topped with in-depth theoretical knowledge as well as strong analytical skills, the graduates of SCSE are assured of their marketability in any industry as the demand for quality Information Technology graduates is set to rise. Aimed at harnessing information technologies, networks and data for a better quality of life, this programme is a huge employment conduit for our graduates.

As the world becomes increasingly urban, computer technologies play a leading role in shaping our cities into pleasant, progressive and planet-friendly environments for work and daily life.

SCSE
School of Computer Science and Engineering
Lead the Change | Innovate the Future
I love that the professors are very thoughtful in making their lectures and teachings at a comfortable pace for us to understand the concepts and techniques. The learning environment that they have created has motivated me to further deepen and broaden my learning.

My overseas exchanges at the McMaster University, Canada and Korea University, South Korea were invaluable experiences. During my exchange at McMaster University, I managed to explore many places in North America such as Toronto, San Francisco; and made friends with other international students from around the world and when I was at Korea University, I experienced living the life of a Korean – exploring cultural places, eating local food and listening to K-Pop.

One of the highlights of my education at NTU SCSE was the opportunity to create programmes that simulate real systems in society such as a cinema booking system, a plethysmograph reader, and a digital signal processor.

In summary, my experience at NTU SCSE has been an intriguing, inspiring and indelible one.
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