A great global university founded on science and technology, nurturing leaders through research and a broad education in diverse disciplines
ABOUT NTU SINGAPORE

Profile

• Fastest-rising university in the world’s top 50; ranked 13th in the world*
• 1st among the world’s young elite universities#
• World’s fastest-rising young university~
• Research-intensive with lion’s share of competitive funding in Singapore (about S$4.18b from 2005 to 2016)
• Leads top Asian universities in normalised research citation impact*
• Ranked 8th for research output/quality in Asia-Pacific (4th for Chemistry and 9th for Physical Sciences)@
• About S$1.46b for sustainability research from FY2005 to FY2015
• S$503.5m in competitive research grants in FY2015/16
• Singapore’s largest academic research programmes – S$25m to study the dynamics of airborne microbes and $24m to uncover the molecular basis of ageing and cancer
• Strengths in engineering, science, business, humanities, arts, social sciences, education, international studies and medicine
• Joint medical school with Imperial College London
• 5th most-cited university for engineering research output that is among the top nine universities globally
• Joint labs on campus with leading multinationals such as Rolls-Royce, BMW, Lockheed Martin and Johnson Matthey
• Combined funding of S$185.5m for 4 corporate labs, namely Rolls-Royce@NTU Corporate Lab, NTU-BMW Future Mobility Research Lab, SMRT-NTU Smart Urban Rail Corporate Lab and Delta-NTU Corporate Lab
• Main campus in Jurong named one of the Top 15 most beautiful in the world (Travel + Leisure magazine and Business Insider); medical campus in Novena, Singapore’s medical district
• 21 halls of residence for undergraduates and 1,800 more hostel places by 2017
• 27 joint and dual PhD programmes with top universities
• About 24,300 undergraduates and 9,000 graduate students from about 90 countries
• About 4,952 faculty and researchers from about 85 countries
• Approximately 210,171 alumni representing 148 nationalities

*2015/16 Quacquarelli Symonds (QS) World University Rankings
#2016 QS Top 50 Under 50
*Thomson Reuters, Elsevier and CWTS Leiden Ranking
~Times Higher Education
@Nature Index 2016 Asia-Pacific

Joint medical school with Imperial College London
Combining NTU’s core strengths in engineering and business with Imperial College London’s world-renowned medical expertise, the Lee Kong Chian School of Medicine is preparing the brightest minds to meet the demands of 21st-century healthcare and introduce innovations to medical education. At its inception, the School received philanthropic support of about S$400m. It admitted its first cohort in August 2013.

A rich heritage: National monumens on campus
Gazetted as a national monument in 1998 and now housing the Chinese Heritage Centre for research on Chinese overseas, the former Nanyang University Administration Building overlooks the historical Yunnan Garden.

The Nanyang University Memorial and original Nanyang University Arch were also declared national monuments of Singapore in 1998.
Deep links with Asia, global connections
NTU’s international outreach is broad and strong and includes more than 400 academic and research partnerships with institutions across the United States, Europe, the Asia-Pacific and beyond.

NTU is one of the seven founding members of the Global Alliance of Technological Universities (GlobalTech), a network of top technological universities united in addressing global issues through leading-edge science and technology.

Global Alliance of Technological Universities
• California Institute of Technology
• Eidgenössische Technische Hochschule Zürich
• Georgia Institute of Technology
• Imperial College London
• Indian Institute of Technology Bombay
• Nanyang Technological University
• Shanghai Jiao Tong University
• Technische Universität München
• University of New South Wales

Governance
The 19-member NTU Board of Trustees is a key pillar of university governance and sets the broad strategic directions for the University. The President of the University is the principal executive. He is assisted by the Deputy President and Provost, Chief of Staff, Vice Presidents, Associate Provosts, Directors/Deans of autonomous institutes, College Deans, School Chairs and heads of administrative departments/institutes.

Chancellor
The President of the Republic of Singapore is the Chancellor of the University.

Colleges
College of Engineering
The largest engineering college in the world with six schools focused on technology and innovation; 5th most-cited university for engineering research output that is among the top nine universities globally; ranked 6th globally for Engineering and Technology and 2nd in Asia by QS 2015/16 World University Rankings; ranked 2nd globally and 1st in Asia by Shanghai Jiao Tong University; home to Singapore’s preferred engineering programme for top A-level graduates

Schools:
• School of Chemical and Biomedical Engineering
• School of Civil and Environmental Engineering
• School of Computer Science and Engineering
• School of Electrical and Electronic Engineering
• School of Materials Science and Engineering
• School of Mechanical and Aerospace Engineering

College of Science
Award-winning faculty, Olympiad medal winners and world-class laboratories; ranked 8th globally for Chemistry and 34th for Physical Sciences (Nature Index); offers Singapore’s first double degree programme in Biomedical Sciences and Traditional Chinese Medicine in partnership with Beijing University of Chinese Medicine

Schools:
• Asian School of the Environment
• School of Biological Sciences
• School of Physical and Mathematical Sciences
Nanyang Business School
(College of Business)
Consistently ranked among the world’s premier business schools, with an MBA programme that is rated top in Singapore and one of the best in Asia; home to leading faculty including The Economist’s Business Professor of the Year (2013) and the world’s top researcher for accounting (Brigham Young Accounting Research Rankings 2013); first business school in Singapore, and the third in Asia, to be accredited by both the European Quality Improvement System and Association to Advance Collegiate Schools of Business.

College of Humanities, Arts, and Social Sciences
Home to the Wee Kim Wee School of Communication and Information, the top school in Singapore and the Asia-Pacific for Communication and Media Studies; a fast-growing humanities and social sciences school with special strengths in research on Asia; and Singapore’s first professional art school offering degree courses in art, design and interactive digital media.

Schools:
• School of Art, Design and Media
• School of Humanities and Social Sciences
• Wee Kim Wee School of Communication and Information

Interdisciplinary Graduate School
A graduate school that supports PhD research in the University’s interdisciplinary research centres in sustainability, secure community, healthy society and global Asia.

Autonomous institutes
National Institute of Education
Singapore’s main teacher-training institute that provides educational consultancy to countries from Abu Dhabi to Vietnam; ranked 14th in the world and 3rd in Asia.

S Rajaratnam School of International Studies
An autonomous graduate institution of NTU and a world authority on strategic and international affairs; ranked among the world’s top 30 university-affiliated think tanks in the 2015 Global Go To Think Tank Rankings.

Lee Kong Chian School of Medicine
Combines NTU’s core strengths in engineering and business with Imperial College London’s world-renowned medical expertise; third intake in 2016.

Earth Observatory of Singapore
Established in 2008 with S$150m in state funding; a leading resource centre in understanding environmental threats and the first Asian organisation to receive a S$5m endowment from the global AXA Research Fund.

Singapore Centre for Environmental Life Sciences Engineering
Set up in 2010 to harness microbial biofilms for water and environmental sustainability; awarded S$120m in government funding over 10 years.

Home to top students, faculty and researchers
NTU develops leaders who are multidisciplinary and well-prepared for the global workplace. The University:
• counts among its students top scholars and Olympiad medallists from the region and beyond
• has world-acclaimed scientists led by biochemist and NTU President Bertil Andersson, former Trustee of the Nobel Foundation and former Chief Executive of the European Science Foundation; and materials science and engineering pioneer and NTU Provost Freddy Boey
• regularly welcomes Nobel laureates and eminent academics brought in under various visiting professorship and fellowship schemes
Recruiting the best
Exceptional young international faculty from diverse disciplines are drawn into the university’s academic and research enterprise through the Nanyang Assistant Professorship scheme, which awards grants of up to S$1m over three years for cutting-edge research, as well as the prospect of tenure-track appointments.

Outstanding young researchers may also apply for prestigious fellowships in science and technology under a scheme promoted by the Singapore National Research Foundation, which could lead to an offer of a faculty position at NTU and research funding of up to S$3m over five years.

NTU is committed to attracting the brightest post-doctorates and PhD students locally and globally. Quality graduate programmes, including joint PhD programmes with top overseas universities, and attractive scholarships, such as the Nanyang President’s Graduate Scholarship, NTU Research Scholarship and Singapore International Graduate Award, help draw the very best research talent from all over the world.

Residential community
The Yunnan Garden campus provides a serene backdrop to 23 halls of residence housing more than 11,400 students and a variety of lodging options, including accommodation for about 1,300 graduate students. All new undergraduates are guaranteed a place in a hall of residence. The three newest halls were ready for move-in in September 2016.

About 38% of full-time undergraduates and 70% of international undergraduates live on campus. Some 600 housing units are set aside for international academics and staff members. In 2017, there will be new hostels for 1,800 more students and accommodation for another 130 faculty.

A town called NTU
• NTU has the largest on-campus residence infrastructure in Singapore.
• Under an exciting Campus Master Plan, new learning, living, research and recreational spaces are being created to foster multidisciplinary pursuits and a collegiate culture. A large learning hub, the centerpiece of flipped classroom learning at NTU, and a lifestyle hub, the North Spine Plaza, are part of this transformed landscape. Another learning hub will be ready in 2017.
• About 35% of NTU’s full-time student population and 57% of faculty call NTU home.

RESEARCH
NTU performs cutting-edge research through various strategic national and international research programmes. The University hosts two out of five national Research Centres of Excellence (RCEs) – the Earth Observatory of Singapore and Singapore Centre for Environmental Life Sciences Engineering, both conducting research aligned with the long-term strategic interests of Singapore. NTU is also the lead local partner in ten out of 16 national CREATE centres, set up with elite international universities.

Research in NTU is carried out within and across the colleges/schools and RCEs, supported by 8 university-level research institutes with 15 research centres under the institutes, 4 National Research Foundation (NRF) Corporate Labs, 61 research centres under the colleges/schools, and 26 joint centres with external organisations.

Key research centres and institutes
• Delta-NTU Corporate Lab
• Earth Observatory of Singapore
• Singapore Centre for Environmental Life Sciences Engineering
• Nanyang Environment & Water Research Institute
• Institute for Media Innovation
• Energy Research Institute @ NTU
• Nanyang Institute of Technology in Health & Medicine
• Centre for Research and Development in Learning
• The Photonics Institute
• Institute of Catastrophe Risk Management
• Institute on Asian Consumer Insight
• Maritime Institute @ NTU
• Nanyang Institute of Structural Biology
• Nanomedicine Institute @ NTU
• NTU-BMW Future Mobility Research Lab
• Singapore Centre for 3D Printing
• SMRT-NTU Smart Urban Rail Corporate Lab
• Rolls-Royce@NTU Corporate Lab
• ST Engineering-NTU Corporate Lab
• Active Living for the ElderLY (LILY)
• Advanced Remanufacturing & Technology Centre (ARTC)
• Skin Research Institute of Singapore
Funding success
From 2005 to 2016, NTU won about S$4.18b in competitive research funding. In FY15, the most significant research grant obtained was $60 million for the SMRT-NTU Smart Urban Rail Corporate Laboratory, contributed by NRF, SMRT and NTU.

Five Peaks of Excellence
In domains such as sustainability, healthcare, new media and innovation, NTU has reached new heights of excellence under NTU 2015, its five-year strategic plan that maps out how it would become a great global university by 2015.

The areas leverage NTU’s diverse strengths, particularly its longstanding expertise in engineering and business, and the interfaces these have with various disciplines such as healthcare, science and the humanities. With more than S$1.46b of research funding in the area of sustainability from FY2005 to FY2015, NTU is already a global leader in this area.

NTU’s medical school, set up jointly with Imperial College London, is meeting the challenges of ageing and healthcare in Singapore. The Lee Kong Chian School of Medicine has an integrated research strategy for a healthy society and will pioneer innovations to bring about enhancements to the healthcare system.

NTU’s next five-year plan, NTU 2020, will see the University consolidating its strengths in spheres beyond sustainability and healthcare, such as in security, future learning and research on Asia, to ensure its continued success.

Some of our international partners

Europe
• Centre National de la Recherche Scientifique
• Eidgenössische Technische Hochschule Zürich
• Fraunhofer-Gesellschaft
• Imperial College London
• Karolinska Institutet
• Technische Universität München
• University of Cambridge
• University of Loughborough
• University of Southampton

North America
• California Institute of Technology
• Carnegie Mellon University
• Cornell University
• Georgia Institute of Technology
• Massachusetts Institute of Technology
• Northwestern University
• Stanford University
• University of British Columbia
• University of California, Berkeley
• University of North Carolina at Chapel Hill

Asia and beyond
• Hebrew University of Jerusalem
• Indian Institute of Technology Bombay
• Korea Advanced Institute of Science and Technology
• Peking University
• Shanghai Jiao Tong University
• Technion-Israel Institute of Technology
• Tokyo Institute of Technology
• University of New South Wales
MOE AcRF:
The Ministry of Education’s (MOE) Academic Research Fund (AcRF) encompasses three tiers of research grants, with Tier 1 grants being the smallest.

NRF:
NRF grants, awarded by the Singapore government, include Competitive Research Programme (CRP), NRF Fellowship and Proof-of-Concept grants.

Creating excellence
NTU has established a strong presence in CREATE (Campus for Research Excellence and Technological Enterprise), an initiative of Singapore’s National Research Foundation to foster ties between elite universities and Singapore-based institutions.

Singapore-MIT Alliance for Research and Technology (SMART)
MIT’s largest international research programme involving NTU researchers, focused on solving societal problems through interdisciplinary research.

Singapore-ETH Centre for Global Environmental Sustainability (SEC)
Spearheads research in sustainable design, planning and construction to meet urban challenges, through the Future Cities Laboratory (FCL) and Future Resilient Systems (FRS).

Singapore-Technion Alliance for Research and Technology (START)
A collaboration to advance the field of cardiac restoration therapy.

Technische Universität München (TUM) CREATE
Set up by NTU and Technische Universität München to develop sustainable transport solutions, including electric cars for Asian cities.

Berkeley Education Alliance for Research in Singapore (BEARS)
A tie-up between NTU and University of California, Berkeley, to enhance the efficiency of buildings in the tropics through Building Efficiency and Sustainability in the Tropics (SinBerBEST) and Singapore-Berkeley Research Initiative for Sustainable Energy (SinBeRISE).

Singapore-Peking University Research Centre (SPURc)
A tie-up to harness carbon capture technologies to mitigate carbon emission.

Cambridge Centre for Advanced Research in Energy Efficiency in Singapore (CARES)
A partnership with the University of Cambridge to help minimise the carbon footprint of industrial-scale chemical processes.
Nanomaterials for Energy and Water Management (NEW)
A CREATE alliance focused on using nanomaterials to improve energy and water management technologies.

Strong links with industry
NTU has a long record of cooperation with industry and is a partner of choice for leading commercial organisations and national research institutions.

Strategic priority areas: Peaks of research excellence
Interdisciplinary areas of research that leverage NTU’s existing strengths and address issues of national and global relevance

1. Sustainable Earth
   * Conserve, Transform, Recycle
   - Water
   - Environment
   - Resources
   - Energy

2. Global Asia
   * Understanding, Engagement, Growth
   - Language
   - Arts
   - Culture
   - Communities
   - Commerce

3. Secure Community
   * Resilience, Adaptation, Protection
   - Economic
   - Infrastructure
   - Defence
   - Resources
   - Social harmony

4. Healthy Society
   * Healthy Living, Active Ageing
   - Metabolic disease
   - Dermatology & skin biology
   - Neuroscience & mental health
   - Infection & immunity
   - Medical technology
   - Public & global health

5. Future Learning
   * Understanding, Learning, Teaching
   - Neurosciences
   - Psychology
   - Pedagogy
   - Technology-enabler

Strategic priority areas: Strengths and focus clusters
NTU’s in-depth disciplinary strengths & established competencies
- Aeronautics & space
- Applied discrete mathematics – coding, crypto & game theory
- Computational science, engineering & data analytics
- Genomics
- Interactive digital media
- Language & cultural diversity
- Manufacturing & remanufacturing
- Nano-medicine
- Photonics
- Structural biology
- Synthetic organic chemistry

Strategic priority areas: Aspirational and emerging areas
New frontiers of research with the potential to transform the world and meet national and global needs and which NTU can build capacity in
- Complexity science
- Digital humanities & social data analytics
- Ecology
- Food science & technology
- Man-machine interface
- Phenomics
- Plant science
- Quantum physics & quantum information
- Synthetic biology & biomimicry
- Urban spaces
UNDERGRADUATE EDUCATION

NTU offers 41 single degree programmes. Students can also choose from 15 double degree programmes, 1 integrated programme and 11 special programmes.

NTU Education, a strategic blueprint for undergraduate education, supports how students learn and provides them with opportunities to develop skills that will enable them to face the future with optimism and confidence. It caters to new ways of learning and embeds the latest teaching practices, including the use of flipped classrooms for interactive and team-based learning.

NTU is the world's first university to allow credits from Massive Open Online Courses (MOOCs) hosted on Coursera to be used to fulfill degree requirements. Almost 12,000 NTU students have completed MOOCs with credit transfer, while more than 10,000 non-NTU students have completed and passed NTU's MOOCs.

Bringing together top professors, the Teaching Excellence Academy fosters research to produce innovations that improve learning outcomes. The new Centre for Research and Development in Learning at NTU is also advancing best practices in tertiary learning.

NTU Education includes:

University Scholars Programme (USP)
A challenging multidisciplinary academic programme for the brightest students; offers a wide range of extracurricular and overseas opportunities and sessions with distinguished professors and Nobel laureates.

Renaissance Engineering Programme (REP)
An elite fully-residential multidisciplinary programme that aims to groom leaders and engineers of the highest calibre who can lead interdisciplinary teams; students graduate with a Bachelor of Engineering Science degree and an MSc in Technology Management in 4.5 years; includes a full year of studies at Imperial College London, University of California, Berkeley, Northwestern University or University of British Columbia, as well as access to technology hubs in these regions.
CN Yang Scholars Programme
Prepares science and engineering talents for top graduate schools; accelerated PhD track.

Undergraduate Research Experience on CAmpus (URECA)
For students with a passion for research; gives access to more than 1,200 research projects campus-wide; students work independently under the guidance of a professor.

Global Education and Mobility (GEM)
NTU offers enriching student mobility programmes with more than 350 partner universities in close to 45 countries through its Global Education and Mobility (GEM) initiatives such as GEM Explorer and GEM Discoverer.

- **GEM Explorer** enables students to take courses or conduct research in an overseas partner university for one full semester while exploring a new country and culture.

- **GEM Discoverer** offers various programmes (ranging from 2 to 24 weeks) that place students globally for overseas internships, summer studies, business/cultural executive programmes and language training. All programmes are credit-bearing with the objective of enhancing students’ cross-cultural intelligence and employability.

Currently, more than 7 in 10 NTU students participate in the University’s overseas immersion programmes. By 2020, 8 in 10 students are expected to benefit from these programmes. For more information on NTU’s GEM programmes, please refer to [www.ntu.edu.sg/global](http://www.ntu.edu.sg/global).

A range of assistance schemes is available to help students defray the cost of their overseas education.

**GRADUATE EDUCATION**
NTU is the first university in the world to start a joint doctoral programme with Imperial College London. It conducts 27 joint/dual PhD programmes. The Interdisciplinary Graduate School offers programmes in areas within the University’s Peaks of Excellence, such as sustainability, healthcare and new media.

**EXECUTIVE AND CONTINUING EDUCATION**
In line with the government’s emphasis on advancing adult education and professional development for Singapore’s workforce to better meet future challenges, NTU established the College of Professional and Continuing Education (PaCE College) in 2016 to consolidate continuing education and training capabilities and expertise within the University.

PaCE College develops programmes for continuing professional education and development, to equip Singapore’s professionals, managers and executives with updated knowledge and skills to keep pace with the rapid technological changes in today’s increasingly competitive economy and industrial landscape.

Its offerings include credit-bearing courses drawn from various undergraduate and graduate academic programmes across a wide spectrum of disciplines. With flexible learning being a central feature of its programmes, the College is another driver of technology-enabled education within NTU.

Besides the programmes offered by PaCE College, customised executive training programmes are also conducted by the Nanyang Business School, College of Engineering, College of Humanities, Arts, and Social Sciences, Nanyang Centre for Public Administration, and Confucius Institute. 275 programmes were conducted in AY2014-15, and 222 programmes in AY2015-16. These programmes attracted approximately 5,260 and 4,590 participants respectively.
STUDENTS

Admissions

NTU welcomes applications from qualified individuals all over the world. Please visit http://admissions.ntu.edu.sg for admission details and contacts.

Enrolment by college (AY2016-17)

<table>
<thead>
<tr>
<th>College</th>
<th>Undergraduates</th>
<th>Graduate Students</th>
<th>Graduate Diploma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Undergraduates^1</td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>10,503</td>
<td>1,281</td>
<td>1,853</td>
</tr>
<tr>
<td>Science</td>
<td>4,095</td>
<td>27</td>
<td>721</td>
</tr>
<tr>
<td>Nanyang Business School</td>
<td>3,894</td>
<td>661</td>
<td>88</td>
</tr>
<tr>
<td>Humanities, Arts &amp; Social Sciences</td>
<td>4,871</td>
<td>589</td>
<td>308</td>
</tr>
<tr>
<td>NIE</td>
<td>621</td>
<td>1,522</td>
<td>251</td>
</tr>
<tr>
<td>Medicine</td>
<td>328</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Others^2</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24,312</td>
<td>4,452</td>
<td>3,639</td>
</tr>
</tbody>
</table>

^1 Others include the Interdisciplinary Graduate School, Nanyang Technopreneurship Centre and S Rajaratnam School of International Studies

^2 There are 817 part-time undergraduate students; a total of 643 graduate research and 2,365 coursework students take part-time programmes

Figures are correct as at 5 Sep 2016

Student life

About 130 main student organisations on campus

Student services

- Psychological and professional counselling
- Career services
- Sports and recreation
- Student clubs and communities
- Health care
- Medical and insurance schemes
- Internal and external shuttle bus services
- Immigration
- Student jobs
- Accessible education services (for students with special needs)
- One Stop @ SAC (Student Activities Centre)

More information on these student services can be found at:

http://www.ntu.edu.sg/students
http://www.ntu.edu.sg/SAO/OurServices

FACULTY AND STAFF

NTU has a total faculty and staff population of 7,829* (as at 1 Jul 2016).

Employee Profile

- Management Staff: 1,455 (19%)
- Faculty: 1,712 (22%)
- Research Staff: 3,240 (41%)
- Support Staff: 1,422 (18%)

Faculty Profile

- Assistant Professor: 432 (25%)
- Associate Professor: 595 (35%)
- Professor: 192 (11%)
- Visiting: 137 (8%)
- Others: 85 (5%)
- Lecturer: 271 (16%)

*Figures exclude adjunct faculty
ALUMNI
• 210,171 university alumni representing 148 nationalities

• 45 overseas alumni associations: China (Anhui, Beijing, Chongqing, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Heilongjiang, Henan, Hong Kong SAR, Hubei, Hunan, Inner Mongolia, Jiangsu, Jiangxi, Jilin, Liaoning, Ningxia-Qinghai-Xizang, Shanxi, Shaanxi, Shandong, Shanghai, Sichuan, Tianjin, Xinjiang, Yunnan and Zhejiang), India (Northern, Central and Southern), Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam (Hanoi and Ho Chi Minh City), United Kingdom, Taiwan, Europe and United States of America (USA-East and USA-West)

LYON, OUR MASCOT
“Lyon the lion” symbolises the University’s values of strength, courage and fearlessness. As the embodiment of the NTU spirit, it not only brings the University community together, but also inspires student teams to give their best performance at inter-varsity and other competitions. Designed by an NTU student, it made its debut in August 2013.

THE NTU FLOWER
*Dendrobium Nanyang* is a pristine white orchid with a burst of purple at the heart of the bloom, signifying pure energy and a caring heart. The hybrid was created by students and teachers of Temasek Primary School as part of an orchid hybridisation programme developed at NTU’s National Institute of Education. The exquisite white petals represent the qualities that embody the university spirit – passion, tenacity, fortitude, leadership, innovation and entrepreneurship.

Prepared by Institutional Statistics-Corporate Governance and Corporate Communications Office