In August 2010, NTU extended a warm welcome to more than 5,000 international athletes and officials as the Youth Olympic Village for the inaugural Youth Olympic Games. The National Institute of Education was the heart of the action as the village square, while athletes stayed at halls of residence around the university. With its serene parkland surrounds, the Yunnan Garden campus has long been a place that encourages youthful talents to excel in the academic arena and beyond.

Yunnan Garden campus
50 Nanyang Avenue
Singapore 639798
Tel: (65) 6791 1744
Fax: (65) 6791 1604
Contents

About NTU 2
Research 11
Undergraduate Education 20
Graduate Education 22
Degree Programmes 24
Executive and Continuing Education 32
Students 33
Faculty and Staff 38
Alumni 39
Vision & Mission
A great global university founded on science and technology

Nurturing creative and entrepreneurial leaders through a broad education in diverse disciplines
PROFILE

- Singapore’s leading science and technology university
- One of the two largest public universities in Singapore
- Fastest-rising Asian university in the top 1% of the world’s best universities; ranked 58th in the world and 12th in Asia*
- Research-intensive with lion’s share of competitive funding in Singapore
- More than S$849m for sustainability research
- S$363m in competitive research grants in FY2010/11
- Strengths in engineering, science, business, humanities, arts, social sciences, education, international studies and medicine (from 2013)
- Two national Research Centres of Excellence with S$270m in government funding
- World’s largest engineering college; 5th most cited
- Joint medical school with Imperial College London
- Largest campus in Singapore at 200 hectares, with 16 halls of residence for undergraduates
- Graduate school in one-north, Singapore’s science and tech hub
- Third campus to be built in Novena, Singapore’s medical district
- First Kauffman Campus outside the United States for entrepreneurship
- Joint and dual PhD programmes with top universities
- About 23,700 undergraduates and 9,500 graduate students from 83 countries
- About 3,600 faculty and research staff from 66 countries
- More than 156,000 alumni in 121 countries

* Quacquarelli Symonds (QS) World University Rankings 2011
History
Established in 1991, Nanyang Technological University (NTU) has roots that go back to 1955 when its predecessor institution, Nanyang University, was set up. Today, NTU is a research-intensive institution bridging the best of the East and the West, and the fastest-rising Asian university in the Top 100 ranked in the QS World University Rankings between 2010 and 2011.

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 will prepare the brightest minds to meet the demands of 21st-century healthcare and introduce innovations to medical education. The school received philanthropic support of more than S$400m in January 2011. It will admit its first cohort in 2013.

A Rich Heritage: National Monuments on Campus
Gazetted as a national monument in 1998 and now housing the Chinese Heritage Centre, the former Nanyang University Administration Building, with a distinct oriental character, 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 and the Asia-Pacific, particularly China and India.

NTU is one of the seven founding members of the Global Alliance of Technological Universities, 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
Governance
The 18-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, Director (National Institute of Education), 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; research output among the top three universities globally; 5th most cited worldwide

Schools:
• School of Chemical and Biomedical Engineering
• School of Civil and Environmental Engineering
• School of Computer 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; offers Singapore’s first double degree programme in Biomedical Sciences and Traditional Chinese Medicine in partnership with Beijing University of Chinese Medicine

Schools:
• School of Biological Sciences
• School of Physical and Mathematical Sciences
Nanyang Business School
(College of Business)
In annual rankings of full-time MBA programmes, the Nanyang MBA is consistently within the global top 100, one of the best in Asia and the best in Singapore (The Economist); the school is the first 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, & Social Sciences
Home to the Wee Kim Wee School of Communication and Information, a top communication school in Asia; a fast-growing humanities and social sciences school with distinctive niches of excellence; 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

Autonomous Institutes
National Institute of Education
Singapore’s main teacher-training institute that provides educational consultancy to countries from Abu Dhabi to Vietnam
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 50 think tanks (non-US) and 2nd among Asia’s best university-affiliated think tanks in the 2011 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; first intake of 50 students in 2013; innovative and pioneering pedagogy

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 on 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 multicultural. The university:

- counts among its students top scholars and Olympiad medallists from the region and beyond
ABOUT NTU

• has world-acclaimed scientists such as biochemist and NTU President Bertil Andersson, former Trustee of the Nobel Foundation and former Chief Executive of the European Science Foundation; leader in British healthcare reform Stephen K Smith from Imperial College London; molecular biologist Stephan Schuster from Penn State University; geologist Kerry Sieh from Caltech; microbiologist Staffan Kjelleberg from University of New South Wales; branding expert Bernd Schmitt from Columbia Business School; structural biologist Daniela Rhodes from MRC Laboratory of Molecular Biology, Cambridge; public communications specialist Charles Thomas Salmon from Michigan State University; neotectonicist Paul Tapponnier from University of Paris; pioneer in biofilm model systems Michael Givskov from University of Copenhagen; top-ranking accounting researcher Clive Lennox; volcanologist Chris Newhall from the US Geological Survey; virtual reality pioneer and MIRALab founder Nadia Thalmann from University of Geneva; animation expert Vibeke Sorensen from University at Buffalo, New York; Swiss pioneer of dye-sensitised solar cells Michael Grätzel, Visiting Professor at NTU and Chairman of the Scientific Advisory Board of the Energy Research Institute @ NTU; and 1992 Chemistry Nobel laureate Rudolph Marcus from California Institute of Technology

• regularly welcomes Nobel laureates and eminent academics brought in under its 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 though 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 16 Halls of Residence housing some 9,200 students and a variety of lodging options, including accommodation for about 500 graduate students. All new undergraduates are guaranteed a place in a hall of residence.

About 35% of full-time undergraduates and 72% of international undergraduates live on campus. Some 600 housing units are set aside for international academics and staff members.

A Town Called NTU
- NTU has the largest on-campus residence infrastructure in Singapore and hosted the inaugural Youth Olympic Games in 2010.
- About 32% of NTU’s full-time student population and 58% of faculty and staff members call NTU home.
Sources of Revenue for FY2010/11 (in S$m)

- Grants from ministries: 798 (54%)
- Research grants: 190 (13%)
- Tuition and other fees: 240 (16%)
- Other income: 249 (17%)

Total Revenue for FY2006/7-FY2010/11 (in S$m)

- FY2006/7: 1,084
- FY2007/8: 1,042
- FY2008/9: 1,173
- FY2009/10: 1,352
- FY2010/11: 1,477

The Financial Year (FY) starts on 1st April and ends on 31st March of the following year.

Academic Year

- Semester 1: August-December
- Semester 2: January-May
- Special Terms: May-July
World-class Research
Research is carried out within and across the colleges and institutes, including more than 70 research centres, and often through strategic partnership programmes. This sustained interdisciplinary effort has resulted in many scientific breakthroughs and headlining technologies.

As the main science and technology university in Singapore, NTU makes significant contributions to the nation’s renewed drive for research and innovation spearheaded by the Singapore National Research Foundation (NRF). This involves a five-year investment in biomedical sciences, environmental and water technologies, and interactive and digital media – areas NTU is strong in.

Key Research Initiatives
- Earth Observatory of Singapore
- Singapore Centre on Environmental Life Sciences Engineering
- Nanyang Environment & Water Research Institute
- Institute for Media Innovation
- Energy Research Institute@NTU
- Biomedical Structural Biology Laboratory
- Institute of Catastrophe Risk Management
- Institute for Sports Research
- Institute on Asian Consumer Insight
Funding Success
From April 2005 to March 2011, NTU won more than S$1.3b in competitive research funding. In FY10, the most significant external competitive research grant received was from the NRF for the TUM-CREATE Centre for Electromobility, set up with Technische Universität München (TUM).

Five Peaks of Excellence
NTU has unveiled its five-year strategic plan, NTU 2015, which maps out how it will become a great global university by 2015. Under this, NTU will build on its current strengths and heritage to make its mark internationally in five interdisciplinary areas – sustainability, healthcare, new media, the best of the East and West, and innovation.

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$849m of research funding in the area of sustainability from 2005 to 2010, NTU is already a global leader in this area.

NTU has set up a medical school jointly with Imperial College London to meet the challenges of ageing and healthcare in Singapore. The Lee Kong Chian School of Medicine will pioneer medical innovations and bring about enhancements to the healthcare system.
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

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

Asia and beyond
• Hebrew University of Jerusalem
• Indian Institute of Technology Bombay
• Peking University
• Shanghai Jiao Tong University
• Technion-Israel Institute of Technology
• Tokyo Institute of Technology
• University of New South Wales
• Waseda University
Breakdown of S$363.2m Competitive Research Grants Awarded (FY2010/11)

*Note: For NRF, the contribution from CRP awards is 11% (S$38.9m)

MOE AcRF:
The MOE Academic Research Fund (AcRF) Tier 2 funds research projects on a competitive basis across Singapore-based universities (NTU, NUS, SMU). Two grant calls are planned for each year, in February and August.

NRF:
The National Research Foundation’s (NRF) Competitive Research Programme (CRP) Funding Scheme aims to encourage high-impact research and enhance intellectual and human capital development for R&D. The CRP scheme funds a broad base of research ideas at the programme level through a competitive bottom-up approach.
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)
Launched to spearhead research in sustainable design, planning and construction to meet urban challenges.
Technion-Israel Institute of Technology, NTU and NUS Centre for Regenerative Medicine
A collaboration to advance the field of cardiac restoration therapy.

TUM-CREATE Centre for Electromobility
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.

Collaboration between NTU, Ben-Gurion University of the Negev and Hebrew University of Jerusalem
A CREATE alliance focused on using nanomaterials to improve energy and water management technologies.

Singapore-Peking University Research Centre for a Sustainable Low-Carbon Future
A tie-up to harness carbon capture technologies to mitigate carbon emission.

Cambridge Centre for Carbon Reduction in Chemical Technology (C4T)
A partnership with the University of Cambridge to help minimise the carbon footprint of industrial-scale chemical processes.

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

Strategic Priority Areas
- Sustainability
- Earth Sciences
- Clean Energy
- Water Technology
- Environmental Life Sciences Engineering
- Infocommunications Technology
- Biomedical Engineering
- Healthcare
• Structural Biology
• Neuroscience
• Bioengineering
• Interactive and Digital Media
• Chinese Culture and Language
• Nanotechnology and Nanoscience
• Microelectronics
• Human Language Processing
• Research relevant to Asian Culture and Economics
• Cultural Intelligence
• Financial Engineering and Risk Management
• Security
• Research and Pedagogy in Education

**Major Industrial Research Partners**

- Det Norske Veritas
- DRTech (Defence Research and Technology Office)*
- European Aeronautic Defence and Space Company
- Fraunhofer-Gesellschaft*
- Gamesa*
- Infineon
- Kemira Oyj
- MicroVision
- Nitto Denko Corporation
- Robert Bosch*
- Rolls-Royce*
- Sembcorp Industries
- Siemens Pte Ltd
- Singapore Power
- ST Kinetics
- ST Microelectronics
- SOLID ASIA*
- Thales*
- Toray Industries Inc*
- Vestas
- World Entrepreneurship Forum

*with laboratories/centres at NTU
Research Revenue (in S$m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Research Revenue</th>
<th>Government/Statutory Boards</th>
<th>Industries and others</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2006/7</td>
<td>3.4</td>
<td>103.6</td>
<td>2.6</td>
</tr>
<tr>
<td>FY2007/8</td>
<td>4.1</td>
<td>134.0</td>
<td>3.4</td>
</tr>
<tr>
<td>FY2008/9</td>
<td>138.1</td>
<td>122.2</td>
<td>15.9</td>
</tr>
<tr>
<td>FY2009/10</td>
<td>31.5</td>
<td>149.2</td>
<td>17.7</td>
</tr>
<tr>
<td>FY2010/11</td>
<td>196.9</td>
<td>220.0</td>
<td>23.1</td>
</tr>
</tbody>
</table>
• X-SAT, Singapore’s first locally-made satellite, successfully launched and operated in space

• NASH, the world’s tallest smart robot that can gesture, make decisions based on information it gathers, follow verbal instructions and climb stairs

• A unique self-healing, anti-rust coating for metals containing microscopic capsules that, once broken, release chemicals that react with moisture in the air to form a plastic-like sealant over the scratch or dent

• A robotic endoscope with two small arms that slashes stomach surgery time from eight hours to 17 minutes and leaves no scars

• Eco-cars such as the diesel-powered Nanyang Venture IV with a record-breaking peak fuel efficiency of 564.2km per litre

• The use of human DNA to process data, paving the way for DNA-based computers that would be up to a trillion times faster than current computers and require almost no electricity to operate

• The use of keratin from human hair to quicken healing in wounds, offering a possible alternative to skin grafting

• A new antibody that could fight 40 types of cancer and reduce the size of tumours by up to 90 percent

• “Pruned” microchips that are faster, smaller and more energy-efficient than conventional chips

• The world’s smallest on-chip low-pass filter for integrated circuit chips that is 1,000 times smaller than existing off-chip filters and vastly improves signal quality, benefiting users of mobile devices

• A novel way to predict business fraud with greater accuracy

• The world’s first medical tool that uses real-time heart rate variability to predict cardiac arrest in the emergency room
An NTU education is broad and includes residential living, international experience and an early immersion in business and industry. NTU offers 34 single bachelor’s degree programmes. Students can also choose from 15 double degree programmes and four integrated programmes.

The key components of The NTU Undergraduate Experience include:

**University Scholars Programme**
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.

**Undergraduate Research Experience on CAmpus (URECA)**
For students with a passion for research; gives access to more than 1,200 projects campus-wide.

**CN Yang Scholars Programme**
Prepares science and engineering talents for top graduate schools.

**Renaissance Engineering Programme (REP)**
An elite fully-residential multidisciplinary programme that aims to groom outstanding CEOs and CTOs; students graduate with a Bachelor of Engineering Science degree and an MSc in Technology Management in 4.5 years.
Global Education and Mobility (GEM)

NTU offers enriching student mobility programmes with more than 100 leading companies and 150 partner universities in over 30 countries through its Global Education and Mobility (GEM) initiatives such as GEM Explorer and GEM Discoverer.

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

- **GEM Discoverer** offers various short-term programmes (ranging from 2 to 22 weeks) that place students overseas for work, study and/or research. During these stints, students earn academic units that count towards their NTU degree.

Currently, more than 2,500 NTU students participate in overseas immersion on a yearly basis. More information about these programmes can be found at: [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._
NTU is the first university in the world to start a joint doctoral programme with Imperial College London. It has been engaging China since the 1990s and now conducts six Master’s programmes for Chinese government officials, including vice-mayors. NTU’s Interdisciplinary Graduate School offers programmes in areas within the university’s Peaks of Excellence, such as sustainability, healthcare and new media.

Some Graduate Programmes with Overseas Partners

- **Joint PhD** – with Imperial College London, Technische Universität München, Karolinska Institutet, Technion-Israel Institute of Technology, Université de Technologie de Troyes, ParisTech Institute of Technology, Hebrew University of Jerusalem, University of Southampton, Technische Universität Darmstadt, Technische Universität Graz and Universität für Bodenkultur Wien (BOKU)

- **Dual PhD** – with Carnegie Mellon University and Columbia University

- **Doctor in Education** – with University of London

- **Double MBA** – with ESSEC Business School and University of St Gallen

- **Double MBA in Management of Technology** – with Waseda University

- **Double Masters Programme (Asian Studies/International Political Economy/International Relations/Strategic Studies)** – with Warwick University

- **Dual Masters Programme – MSc in Systems and Project Management and Master of Engineering in Systems Engineering** – with Stevens Institute of Technology
• Executive MBA in Energy – with BI Norwegian Business School

• Executive MBA (English) in Advanced Management – with Haas School of Business, University of California, Berkeley

• Executive MBA in Shipping, Offshore and Finance – with BI Norwegian Business School

• Executive MBA (Shanghai) – with Shanghai Jiao Tong University

• MBA (Nanyang Fellows) – with Massachusetts Institute of Technology and Wharton Business School

• MSc (Technopreneurship & Innovation) (English) – with University of Washington

• Master of Management in Hospitality – with Cornell University’s School of Hotel Administration

• MSc in Aerospace Engineering/Integrated Circuit Design/Microelectronics – with Technische Universität München

• MSc in Communications Engineering/Power Engineering/Signal Processing – with Wuhan University

• MSc in Environmental Science & Engineering – with Stanford University

• MSc in Financial Engineering – with Carnegie Mellon University

• MSc in Maritime Studies – with BI Norwegian Business School
<table>
<thead>
<tr>
<th>College/ School/ Institute</th>
<th>Undergraduate Programmes</th>
<th>Graduate Programmes by Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>^Renaissance Engineering/^ * + Engr and Econs/^BEng &amp; MSc Computer Science</td>
<td></td>
</tr>
<tr>
<td>School of Chemical &amp; Biomedical Engineering</td>
<td>Bioengineering/ Chemical and Biomolecular Engr</td>
<td>Master of Engr/ PhD (Bioengineering/ Chemical &amp; Biomolecular Engr) / Joint PhD Engr / Joint PhD with Imperial College London</td>
</tr>
<tr>
<td>School of Civil &amp; Environmental Engineering</td>
<td>Civil Engr/ Environmental Engr/ Maritime Studies</td>
<td>Master of Engr/ PhD</td>
</tr>
<tr>
<td>School of Computer Engineering</td>
<td>^Business and Computing/^BEng (Computer Engineering) &amp; MSc (Computer Science)</td>
<td>Master of Engr/ PhD</td>
</tr>
<tr>
<td>School of Electrical &amp; Electronic Engineering</td>
<td>Electrical and Electronic Engr/ Information Engr and Media/^BEng (Electrical and Electronic Engineering) &amp; MSc (Electrical and Computer Engineering)</td>
<td>Master of Engr/ PhD/ Joint PhD with Université de Technologie de Troyes/ Joint PhD with ParisTech</td>
</tr>
<tr>
<td>School of Materials Science &amp; Engineering</td>
<td>Materials Engr</td>
<td>Master of Engr/ PhD/ Joint PhD with Technion</td>
</tr>
<tr>
<td>School of Mechanical &amp; Aerospace Engineering</td>
<td>Aerospace Engr/ Mechanical Engr</td>
<td>Master of Engr/ PhD/ Dual PhD with Carnegie Mellon</td>
</tr>
</tbody>
</table>

*Double Degree Programme. Students graduate with 2 Bachelor’s degrees.
* + The Bachelor of Engineering degree awarded will be in the specific Engineering programme.
* ^Integrated programme.
<table>
<thead>
<tr>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc (Biomedical Engineering)</td>
</tr>
<tr>
<td>MSc (Civil Engr/ Environmental Engr/ Environmental Science &amp; Engr-NEWRI/</td>
</tr>
<tr>
<td>^Infrastructure Engr &amp; Management/ Intl Construction Management/ ^</td>
</tr>
<tr>
<td>Maritime Studies)/ Graduate Diploma (Construction Management)</td>
</tr>
<tr>
<td>MSc (Bioinformatics/ Digital Media Technology/ Embedded Systems/ ~</td>
</tr>
<tr>
<td>Information Systems)</td>
</tr>
<tr>
<td>MSc (Communication Software &amp; Networks/ Communications Engr/ Computer</td>
</tr>
<tr>
<td>Control &amp; Automation/ Electronics/ ^Integrated Circuit Design/ ^</td>
</tr>
<tr>
<td>Microelectronics/ Power Engr/ Signal Processing)/ Graduate Diploma in</td>
</tr>
<tr>
<td>Information-Communication Technology/ **MSc (Communications Engr/</td>
</tr>
<tr>
<td>Communication Software &amp; Networks/ Computer Control Automation/</td>
</tr>
<tr>
<td>Electronics/ Power Engr/ Signal Processing)</td>
</tr>
<tr>
<td>**MSc (Communication Software &amp; Networks/ Communications Engr/ Computer</td>
</tr>
<tr>
<td>Control &amp; Automation/ Electronics/ Power Engr/ Signal Processing)</td>
</tr>
<tr>
<td>**MSc (Communication Software &amp; Networks/ Communications Engr/ Computer</td>
</tr>
<tr>
<td>Control &amp; Automation/ Electronics/ Power Engr/ Signal Processing)</td>
</tr>
<tr>
<td>MSc (Aerospace Engineering/ Biomedical Engr/ Human Factors Engr/</td>
</tr>
<tr>
<td>Logistics/ Mechanical Engr/ Precision Engr/ Smart Product Design/</td>
</tr>
<tr>
<td>System &amp; Project Management)/^Dual Masters (System &amp; Project Management)</td>
</tr>
</tbody>
</table>

^ Joint programme with overseas university.
** Joint education MOU with Wuhan University.
~ Program is a collaboration between School of Computer Engineering and Wee Kim Wee School of Communication & Information.
<table>
<thead>
<tr>
<th>College/School/Institute</th>
<th>Undergraduate Programmes</th>
<th>Graduate Programmes by Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Biological Sciences</td>
<td>Biological Sciences/ *Biomedical Sciences and Chinese Medicine</td>
<td>Master of Science/ PhD/ Joint PhD with Karolinska Institutet</td>
</tr>
<tr>
<td>School of Physical &amp; Mathematical Sciences</td>
<td>Chemistry and Biological Chemistry/ Mathematics and Economics/ Mathematical Sciences/ Physics/ Applied Physics</td>
<td>Master of Science/ PhD/ Joint PhD with ParisTech</td>
</tr>
<tr>
<td></td>
<td>Sport Science and Management</td>
<td>-</td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td>*Accountancy and Business/ Accountancy/ Business</td>
<td>PhD</td>
</tr>
</tbody>
</table>

*Double Degree Programme. Students graduate with 2 Bachelor’s degrees.

^Joint programme with overseas university.

* Programme is conducted in Chinese.

♦ Award of degree is by SJTU (Shanghai Jiao Tong University) and not NTU.
Graduate Programmes by Coursework & Dissertation

- 

- 

- 

^EMBA (Chinese)/ ^EMBA (English)/ ^MBA-Nanyang Fellows Programme/ NTU-Waseda Double MBA in Management of Technology/ *SJTU-MBA/ Nanyang MBA (General MBA or Specialised in Accountancy/ Finance/ Intl Business/ Intl Studies/ Knowledge Management/ Strategy/ Marketing/ Technology)/ ^Master of Management in Hospitality/ *MSc (Finance)/ ^MSc (Financial Engineering)
<table>
<thead>
<tr>
<th>College/School/Institute</th>
<th>Undergraduate Programmes</th>
<th>Graduate Programmes by Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities, Arts &amp; Social Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Art, Design &amp; Media</td>
<td>Digital Animation/ Digital Filmmaking/ Interactive Media/ Photography and Digital Imaging/ Product Design/ Visual Communication</td>
<td>-</td>
</tr>
<tr>
<td>School of Humanities &amp; Social Sciences</td>
<td>^Chinese/ Economics/ English/ Linguistics and Multilingual Studies/ Psychology/ Sociology</td>
<td>Master of Arts/ PhD</td>
</tr>
<tr>
<td>Wee Kim Wee School of Communication &amp; Information</td>
<td>Communication Studies</td>
<td>Master of Applied Science/ Master of Communication Studies/ PhD</td>
</tr>
<tr>
<td>National Institute of Education</td>
<td>Arts (Education)/ Science (Education)/ Education</td>
<td>Master of Arts/ Master of Science/ ^Doctor in Education/ PhD</td>
</tr>
</tbody>
</table>

^Joint programme with overseas university.

^Programme is conducted in Chinese.

^Programme is a collaboration between School of Computer Engineering and Wee Kim Wee School of Communication & Information.
Graduate Programmes by Coursework & Dissertation

- "Master of Public Administration/ MA (Contemporary China)/ MSc (Managerial Economics)

Master of Mass Communication/ MSc (Information Studies/ Information Systems/ Knowledge Management)/ Graduate Diploma in Mass Communication

Doctor in Education/ Master of Arts (Applied Linguistics/ Applied Psychology/ Counselling & Guidance/ Educational Management/ Instructional Design & Technology/ Social Studies)/ Master of Education/ Master in Educational Administration/ MSc (Exercise and Sport Studies/ Life Sciences/ Mathematics for Educators)/ Master of Teaching/ Postgraduate Diploma in Education
<table>
<thead>
<tr>
<th>College/ School/ Institute</th>
<th>Undergraduate Programmes</th>
<th>Graduate Programmes by Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>S Rajaratnam School of International Studies</td>
<td>-</td>
<td>PhD</td>
</tr>
<tr>
<td>Nanyang Technopreneurship Centre</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

^Joint programme with overseas university.

*Programme is conducted in Chinese.

*Double Degree Programme. Students graduate with 2 Master’s degrees.
<table>
<thead>
<tr>
<th>Graduate Programmes by Coursework &amp; Dissertation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc (Strategic Studies with Certification in Terrorism Studies option)/ MSc (Asian Studies/ Intl Political Economy/ Intl Relations)/ The Nanyang MBA (Intl Studies - *jointly offered with Nanyang Business School)/ ^MSc (Asian Studies/ Intl Political Economy/ Intl Relations/ Strategic Studies)/ ^Double Masters (Asian Studies/ Intl Relations/ Intl Political Economy/ Strategic Studies)</td>
</tr>
<tr>
<td>MSc (Technopreneurship &amp; Innovation)/ ^MSc (Technopreneurship &amp; Innovation)</td>
</tr>
</tbody>
</table>
NTU offers professional development courses, regional executive programmes and tailored training programmes for corporate clients through its Centre for Continuing Education (CCE). Executive classes are conducted at the university’s one-north campus and at the Nanyang Executive Centre, a modern on-campus facility with 50 conference facilities and 170 guestrooms.

Besides the programmes offered by CCE, customised executive training programmes are also conducted by the Nanyang Business School, College of Engineering, College of Humanities, Arts, & Social Sciences, Centre for Excellence in Learning and Teaching, and Confucius Institute. 263 programmes were conducted in AY2009-10, and 225 programmes in AY2010-11. These programmes attracted approximately 7,700 and 6,500 participants respectively.
Admissions
NTU welcomes applications from qualified individuals all over the world. Please visit
http://admissions.ntu.edu.sg
for admission details and contacts.

AY2011-12 Local vs International Undergraduate Enrolment
AY2011-12 Local vs International Graduate Student (Coursework & Research) Enrolment

- Local: 4,071 (51%)
- International: 3,947 (49%)

AY2011-12 Local vs International Graduate Diploma Enrolment

- Local: 1,405 (92%)
- International: 120 (8%)
Enrolment by College (AY2011-12)

<table>
<thead>
<tr>
<th>College</th>
<th>Undergraduates</th>
<th>Graduate Students</th>
<th>Graduate Diploma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Coursework</td>
<td>Research</td>
</tr>
<tr>
<td>Engineering</td>
<td>10,759</td>
<td>1,332</td>
<td>2,343</td>
</tr>
<tr>
<td>Science</td>
<td>3,843</td>
<td>-</td>
<td>659</td>
</tr>
<tr>
<td>Nanyang Business School</td>
<td>3,433</td>
<td>645</td>
<td>81</td>
</tr>
<tr>
<td>Humanities, Arts &amp; Social Sciences</td>
<td>3,826</td>
<td>632</td>
<td>177</td>
</tr>
<tr>
<td>NIE</td>
<td>1,837</td>
<td>1,584</td>
<td>288</td>
</tr>
<tr>
<td>Others¹</td>
<td>-</td>
<td>252</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23,698</strong></td>
<td><strong>4,445</strong></td>
<td><strong>3,573</strong></td>
</tr>
</tbody>
</table>

¹ Others include the Nanyang Technopreneurship Centre and S Rajaratnam School of International Studies.

² There are 658 part-time undergraduates and 28 part-time graduate diploma students. A total of 796 graduate research students and 2,719 coursework students take part-time programmes.

Figures are correct as at 5 Sep 11.
Graduates from 2007 to 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Bachelor</th>
<th>Degree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>4,931</td>
<td>2,409</td>
<td>7,340</td>
</tr>
<tr>
<td>2008</td>
<td>4,912</td>
<td>2,432</td>
<td>7,344</td>
</tr>
<tr>
<td>2009</td>
<td>5,162</td>
<td>2,846</td>
<td>8,008</td>
</tr>
<tr>
<td>2010</td>
<td>5,502</td>
<td>3,072</td>
<td>8,574</td>
</tr>
<tr>
<td>2011</td>
<td>5,786</td>
<td>3,052</td>
<td>8,838</td>
</tr>
</tbody>
</table>

Student Life
113 student clubs and organisations on campus

Student Services
- Psychological and professional counselling
- Career services
- Services for international students
- Sports and recreation
• Student clubs and communities
• Health care
• Medical and insurance schemes
• Internal shuttle bus service

More information on these student services can be found at:
http://www.ntu.edu.sg/services/studentservices
http://www.ntu.edu.sg/campus
http://www.ntu.edu.sg/isc (services for international students)

Recent Achievements
• L’Oréal Brandstorm Global Champion (2011)
• Winner of the McGill Management International Case Competition (2011)
• Champion, Bain & Company Case Challenge (2011)
• Champion, Diesel Fuel category, Shell Eco-marathon Asia (2011)
• Red Dot Design Concept Award (2011)
• HSBC/National Youth Achievement Award Youth Environmental Award (2011)
• Solar Grand Prize, Shell Eco-marathon Asia (2010)
• Best of Film, Best of Show, Best of Advertising and Best of Photography at Crowbar Awards (2010)
NTU has a total faculty and staff population of 6,212.

**Employee Profile**

- Support Staff: 1,732 (28%)
- Management Staff: 880 (14%)
- Research Staff: 1,922 (31%)
- Faculty: 1,678 (27%)

**Faculty Profile**

- Assistant Professor: 526 (31%)
- Associate Professor: 541 (32%)
- Professor: 136 (8%)
- Visiting: 106 (6%)
- Lecturer/Senior Lecturer: 211 (13%)
- Others: 138 (10%)

*Figures are as at 1 Jul 11 and exclude adjunct faculty.*
• 156,831 university alumni in 121 countries
• 36 overseas alumni associations in China (Anhui, Beijing, Chongqing, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Heilongjiang, Henan, Hebei, Hunan, Inner Mongolia, Jiangsu, Jiangxi, Jilin, Liaoning, Shanxi, Shaanxi, Shandong, Shanghai, Sichuan, Tianjin, Yunnan, Zhejiang, Hong Kong), India, Indonesia, Thailand, Vietnam (Hanoi, Ho Chi Minh City), the United Kingdom and the United States (East and West)
• 80% of the Class of 2011 made a graduation gift to the university, to benefit future generations of students
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.

The Yunnan Garden campus is located in the southwestern part of Singapore, near the Jurong West Extension area. This campus is easily accessible by the Pan-Island Expressway (PIE). It is also near the Boon Lay Bus Interchange and the Boon Lay Mass Rapid Transit (MRT) station.

NTU's second campus is right next to the Biopolis, Singapore’s biomedical research hub, in one-north. A third campus is being set up in Novena, Singapore’s medical district.
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.

The Yunnan Garden campus is located in the southwestern part of Singapore, near the Jurong West Extension area. This campus is easily accessible by the Pan-Island Expressway (PIE). It is also near the Boon Lay Bus Interchange and the Boon Lay Mass Rapid Transit (MRT) station.

NTU’s second campus is right next to the Biopolis, Singapore’s biomedical research hub, in one-north. A third campus is being set up in Novena, Singapore’s medical district.
In August 2010, NTU extended a warm welcome to more than 5,000 international athletes and officials as the Youth Olympic Village for the inaugural Youth Olympic Games. The National Institute of Education was the heart of the action as the village square, while athletes stayed at halls of residence around the university. With its serene parkland surrounds, the Yunnan Garden campus has long been a place that encourages youthful talents to excel in the academic arena and beyond.
In August 2010, NTU extended a warm welcome to more than 5,000 international athletes and officials as the Youth Olympic Village for the inaugural Youth Olympic Games. The National Institute of Education was the heart of the action as the village square, while athletes stayed at halls of residence around the university. With its serene parkland surrounds, the Yunnan Garden campus has long been a place that encourages youthful talents to excel in the academic arena and beyond.

NANYANG TECHNOLOGICAL UNIVERSITY

www.ntu.edu.sg

Yunnan Garden campus
50 Nanyang Avenue
Singapore 639798
Tel: (65) 6791 1744
Fax: (65) 6791 1604

NTU@one-north campus
11 Slim Barracks Rise
(off North Buona Vista Road)
Singapore 138664

www.facebook.com/NTUs
g

www.twitter.com/NTUs
g

www.youtube.com/NTUs
g

Published by the Corporate Communications Office and Office of Academic Services

© Nanyang Technological University
Reg No 200604393R  April 2012