BACHELOR OF ENGINEERING WITH A SECOND MAJOR IN SOCIETY AND URBAN SYSTEMS

Environmental, urban planning and policy issues figure prominently in the world today. In particular, the growing complexity in city planning and development, as well as the sustainability of natural and urban ecosystems has been put into question by environmental degradation, loss of biodiversity, demographic change, consumption patterns, and depletion of – or lack of access to – resources.

The new Bachelor of Engineering with a Second Major in Society and Urban Systems programme, jointly offered by the College of Engineering and College of Humanities, Arts and Social Sciences, offers students an insightful interdisciplinary study on contemporary urban systems. Students will acquire 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 engage with the social, political, economic and cultural considerations of urban systems planning and policy-making. Courses covered will include physical and environmental studies, planning and project management, as well as understanding the multifaceted causes, consequences, and costs of complex urban challenges - with a view towards integrating, synthesising and developing perspectives and solutions for a sustainable urban built environment and improved quality of life.

PROGRAMME STRUCTURE AND OPTIONS

The structure of the Bachelor of Engineering with a Second Major in Society and Urban Systems programme integrates the requirements of both majors within the typical candidate of 4 years. Students can choose from 4 programme options below:

1. Civil Engineering with a Second Major in Society and Urban Systems
2. Electrical and Electronic Engineering with a Second Major in Society and Urban Systems
3. Environmental Engineering with a Second Major in Society and Urban Systems
4. Mechanical Engineering with a Second Major in Society and Urban Systems

For their Second Major in Society and Urban Systems, students will take 4 foundation core courses and 9 specialised elective courses which can be selected from 3 areas – Urban Economics and Public Policy, Society and Culture, and Water and Environmental Management.

Foundation Core Courses (4 Courses)
- Principles of Economics
- Urban Planning and Design
- Integrated Urban Management
- Leaders in Urban Systems and Policy

Specialised Elective Courses (9 Courses)

(A) Urban Economics and Public Policy (Choose 4)
- Cities and Urban Life
- Development and Social Change
- Energy Economics
- Environmental Economics
- Health Economics
- Science, Technology and Society
- Social Democracy
- Urban and Transport Economics
- Cultural Studies

(B) Society and Culture (Choose 3)
- City and Culture in Modern China
- Communication Strategies for Sustainability and Social Change
- Environmental Philosophy
- Language in Society
- Language Planning and Policy
- Urban Culture Asia

(C) Water and Environmental Management (Choose 3)
- Air Quality Management
- Environmental Impact Assessment
- Environmental Quality
- Water resources Management

ADMISSIONS REQUIREMENTS

Candidates must meet the minimum entry requirements of Engineering and Humanities programmes, including the following minimum subject requirements:

- H2 Level pass in Mathematics or equivalent,
- H2 Level pass in Biology/Chemistry/Computing/Physics or equivalent, and
- H1 Level pass in Physical or equivalent, and
- H1 Level pass in General Paper/Aknowlegde & Inquiry or "O" Level pass in English

TUITION FEES AND SCHOLARSHIPS

The tuition fees for the Bachelor of Engineering with a Second Major in Society and Urban Systems programme will be pegged to the fees for the Bachelor of Engineering programmes. Eligible students may be considered for scholarships that include fully paid subsidised tuition fees and living allowance. Scholarship terms and conditions apply. For more information on tuition fees and scholarships, please visit http://admissions.ntu.edu.sg.

GRADUATION

Graduates of the Bachelor of Engineering with a Second Major in Society and Urban Systems programme will be awarded a Bachelor of Engineering in their chosen Engineering major with an additional certificate for the Second Major in Society and Urban Systems.

ACCREDITATION

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

INFORMATION AND ENQUIRIES

For more information and enquiries on the Bachelor of Engineering with a Second Major in Society and Urban Systems programme, please visit http://coe.ntu.edu.sg/SUS.
A Bachelor of Engineering fundamentally lays a firm and strong foundation for Heiling careers, ultimately offering students one degree but many choices. The interdisciplinary Second Major in Society and Urban Systems further adds value and provides students the impetus to broad and diverse career options in the built environment sector:

- Sustainable Urban Development and Built Environment
- Economic Development, Housing and Real Estate
- Environmental Integration
- Transportation Management
- Sustainable Resource Management
- International Development
- Consultancy
- Management
- Education
- Research

In addition to the private sector, graduates can look forward to a plethora of opportunities and career development in the public sector including the following public agencies.

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