The Master of Technology is offered jointly by the Institute of Systems Science, the Department of Electrical & Computer Engineering and the School of Computing at the National University of Singapore.

This programme will lead to the award of a Master's degree by the National University of Singapore. It offers specialisation in either software engineering or knowledge engineering and is specifically designed to meet the needs of today's busy IT professionals and managers without disrupting their work and career. The curriculum emphasises understanding and exploitation of advanced technologies and management disciplines. It focuses on the practical application of innovative techniques and developing the IT professional's capability for innovation.

This Master's programme extends over a minimum period of two and one-half years, and a maximum of five years of part-time study. The programme is also available on a full-time basis over a minimum period of one and a half years.
Modules
The following sections are descriptions of the MTech courses. All MTech candidates must complete a total of eleven units from the following areas.

Core Units (choose one specialisation)

- Software Engineering Specialisation
  - Basic SE Discipline
  - Object-Oriented Analysis and Design
  - Software Project Management
  - Software Quality Management

- Knowledge Engineering Specialisation
  - Fundamentals of KE
  - Knowledge-Based Systems Development
  - Advanced AI Techniques
  - Hybrid KE Systems

Basic Elective Units

- Advanced IT Management
  - Software Metrics & Process Improvement
  - IT Law
  - Managing IT Outsourcing & Subcontracting
  - Business Process Management
  - IT Service Management
  - Agile Software Project Management

- Requirements, Design & Construction
  - Software Requirements Engineering
  - Human Computer Interface
  - Object Oriented Design Patterns
  - Architecting Software Solutions
  - Software Maintenance & Evolution
  - Software Prototyping

Knowledge Engineering Techniques

- Business Analytics
- Text Mining
- Genetic Algorithms
- Case Based Reasoning
- Knowledge Management

IT Infrastructure Technologies

- Information System Security
- Open Source for the Enterprise
- Cloud Computing

Technopreneurship & Innovation

- Research on Advanced IT Topics I
- Research on Advanced IT Topics II
- Service Innovation

Software Development Platforms & Technologies

- Enterprise .NET I
- Enterprise .NET II
- Enterprise Java
- Enterprise Integration
- Mobile Wireless
- Application Development

Advanced Elective Units

Institute of Systems Science
- Formal Methods
- Software Engineering
- Enterprise Architecture

To view the full list of advanced elective units from Department of Electrical & Computer Engineering and School of Computing, visit http://www.iss.nus.edu.sg/mttech

For more information on Software Engineering or Knowledge Engineering courses, please email us at isspostgrad@nus.edu.sg

Students Commitment

Candidates must successfully complete the following course components to be awarded the degree:

a. Core courses
   Each candidate is required to pass four compulsory core courses (all conducted by IIS) in their area of specialisation (either SE or KE).

b. Basic electives
   Each candidate is required to pass eight basic elective courses (all conducted by IIS). There is no restriction on the specialisation from which these electives can be selected, but candidates are typically limited to a maximum of one advanced elective conducted by IIS.

c. Advanced electives
   Each candidate is required to pass three advanced elective courses, conducted by IIS, the Department of Electrical and Computer Engineering (DECE) or the School of Computing (SOC). There is no restriction on the specialisation from which these electives can be selected, but candidates are typically limited to a maximum of one advanced elective conducted by IIS.

d. Project
   Each candidate is required to pass a team-based application development project in their area of specialisation (either SE or KE).

The Core and Basic Elective units require part-time candidates to attend 20 weekday full-day (Mon - Fri) classes (maximum of 5 full days per semester) and 60 Saturday classes (9:00am - 5:00pm). Full-time candidates attend 40 weekday classes and 26 Saturday classes. In addition, the project will require approximately 60 days of the candidate's own time.
For advanced elective units offered by the Department of Electrical & Computer Engineering or the School of Computing, candidates are required to attend 2-3 hours of lecture per week during a semester. Each semester is about 12-13 weeks in duration (excluding exams).

Projects

A key feature of the MTech program is the student projects. These projects extend over a year and provide students with the opportunity to practice their newly acquired skills as part of a team working on a real-life project. Projects usually involve systems development for a sponsoring organisation (often the employer of one or more team members). These projects enable students to apply the tools and methods they have learned, and also allow sponsoring organisations to experience and assess new technologies.

Admission Requirements

To gain admission to the programme, candidates will be required to meet the following criteria:

a. Possess an undergraduate degree, preferably in Science or Engineering and at least a grade point average of 8.

b. Preferably have 2 years relevant working experience.

c. Have passed an entrance test administered by ISS.

d. Certain candidates who possess highly relevant Honours' Master's or PhD degrees may be granted entrance test waiver after assessing their application.

d. ISS may, at its discretion, accept GRE general test in lieu of ISS entrance test in genuine cases (e.g. a candidate lives in a country where ISS does not administer entrance tests or candidate had valid reasons that prevented him or her from attending the ISS entrance test when it was administered.)

d. Have received a favourable assessment at an admission interview conducted by ISS.

d. Have a high proficiency in the English language (spoken and written). International applicants who graduated from universities where English is not the medium of instruction may be asked to take TOEFL/IELTS.

- TOEFL: Paper-based test (550) : Computer-based test (237) : Internet-based test (85)

- IELTS: Result of 6.0

Note: Institution code of NUS-ISS for TOEFL is 2432

Tuition Fees & Loans

The following fees (after MOE subsidy) will be applicable for the Master of Technology programme:

<table>
<thead>
<tr>
<th>Semester Tuition Fee (Part Time)</th>
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<tbody>
<tr>
<td>Singapore Citizens</td>
<td>$51,900</td>
</tr>
<tr>
<td>Permanent Residents</td>
<td>$52,505</td>
</tr>
<tr>
<td>International Students</td>
<td>$53,495</td>
</tr>
<tr>
<td>* with service obligation</td>
<td>$53,495</td>
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<tr>
<td>* without service obligation</td>
<td>$55,830</td>
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<table>
<thead>
<tr>
<th>Semester Tuition Fee (Full Time)</th>
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</thead>
<tbody>
<tr>
<td>Singapore Citizens</td>
<td>$53,795</td>
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<tr>
<td>Permanent Residents</td>
<td>$55,010</td>
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<tr>
<td>International Students</td>
<td>$56,985</td>
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<tr>
<td>* with service obligation</td>
<td>$56,985</td>
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<tr>
<td>* without service obligation</td>
<td>$58,655</td>
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</tbody>
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<table>
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<tr>
<th>Others</th>
<th></th>
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<tbody>
<tr>
<td>Online Application</td>
<td>$520</td>
</tr>
<tr>
<td>Registration</td>
<td>$533.50</td>
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<tr>
<td>Examination</td>
<td>$267.50</td>
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<tr>
<td>Access Card</td>
<td>$21.49</td>
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<tr>
<td>Semester Miscellaneous Fee (Part Time)</td>
<td>$95.39</td>
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<tr>
<td>(Full Time)</td>
<td>$182.96</td>
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</table>
The substantial tuition subsidy from the Government of Singapore comes in the form of a MOE subsidy which is administered by the Ministry of Education (MOE) and is offered to all admitted students up to the maximum course duration. Not all students are eligible for the MOE subsidy.

Explanatory notes below on service obligation applicable only to International Students.

* As a self-financing student (i.e. paying tuition fees on your own), please note that you are eligible to apply for service obligation with MOE, provided you have not previously enjoyed MOE subsidy in a graduate programme where the degree is of the same or lower level than what you have been offered here.

The service obligation will require you to work in Singapore-based companies for 3 years upon graduation. Singapore-based companies refer to local and international companies that have a base in Singapore that is registered with the Accounting & Corporate Regulatory Authority (ACRA) as well as companies of such local and international companies registered with ACRA that are based overseas.

Tuition fees are payable by GIRO only. The fees shown are at the prevailing GST rates, and may be subject to changes without prior notice.

**Tuition Fee Loan**

Full-time students who require financing for their tuition fees may apply for a loan under the Tuition Fee Loan (TFL) scheme. The maximum loan quantum is 90% of the tuition fees payable by Singapore Citizens for the same course.

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**How to Apply**

The Master of Technology programme commences in January each year. To apply for the programme, candidates may do so via the Graduate Admission System (Coursework).

Upon online submissions, applicants are also required to print out the completed online application form (click the top right button under ‘Summary’ section for printing). Please sign and send the duly declared application form along with all supporting documents to the Institute of Systems Science.

The application form must be accompanied by an application fee of $20.00 non-refundable. Please download and fill out the Application Fee Form from our website. Cheque/bank draft should be made payable to ‘National University of Singapore’.

Please write your name, mailing address, contact number and programme applied for on the reverse side. Alternatively, applicants can make e-payment by credit card (a printed receipt must be included with the application materials).

Please send the proof of payment together with the application materials to:

M Tech Programme Administrator
Institute of Systems Science
National University of Singapore
25 Hong Mui Keng Terrace
Singapore 119615

Please note that an application without the application fee payment will not be processed. Please refer to our website for application closing date.

For further enquiries, please email us at isspostgrad@nus.edu.sg or call +65 6716 2093. Queries can also be faxed to +65 6776 2571.

Visit our website at www.iss.nus.edu.sg/mtech for more information.
About ISS

The Institute of Systems Science (ISS) is established in 1981 as an academic unit within the National University of Singapore (NUS). It is a specialty institute providing graduate education and professional development courses to develop Infocomm leaders and drive business and organisation innovation.

The institute is accredited by leading international and local accreditation and certification bodies to deliver programmes that lead to recognised certifications and qualifications. ISS is an appointed Continuing Education and Training (CET) Centre for the National Infocomm Competency Framework (NICF). It also conducts research, organises IT management and technology update seminars and provides consulting services to the industry. The Singapore e-Government Leadership Centre in ISS helps government leaders innovate and transform through e-Government education, and consulting and research.

Over 75,000 Infocomm professionals and 4,300 corporate customers have benefitted from the programmes and services that ISS offers.

Why study at ISS

ISS offers a suite of high quality practice-based programmes to help Infocomm professionals innovate over the course of their careers and develop the competencies to implement methodologies, processes and best practices to achieve consistent and improved business results.

To create and maintain a business-sensitive IT capability, it requires more than technology management skills; it calls for an understanding of business, technology, and people and how they can be orchestrated advantageously for competitive advantage.


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