### APPENDIX B: Q&A KNOWLEDGE BASE

# FAQ for Intelligent Systems (IS)

1. **Can I have some course information of Intelligent Systems?**

The NUS Master of Technology in Intelligent Systems programme is targeted at working professionals who wish to be able to design and build systems that utilise Artificial Intelligence and other Smart Systems techniques. Application areas are wide and diverse, and include robotics, autonomous vehicles, intelligent sensing systems, Internet of Things, Smart City applications and Industry 4.0 applications, as well as applications within business and commerce.

The MTech IS programme emphasises the concepts, techniques and methods of Artificial Intelligence, and their application to the development of Intelligent Systems applications. The programme provides you with the essential knowledge and practical experience needed to become an Artificial Intelligence and Intelligent Systems specialist, and prepares you to be able to lead the development of Intelligent Systems in providing effective and optimal business solutions for your organisation.

1. **How do I go about applying for Intelligent Systems (IS)?**

Apply for the course at <https://www.iss.nus.edu.sg/graduate-programmes/programme/detail/master-of-technology-in-intelligent-systems> !

1. **What are the career prospects for Intelligent Systems (IS)?**

Graduates of IS can pursue the following careers: Artificial Intelligence Specialist, Machine Learning Specialist, Intelligent Systems Specialist, Robotic Systems Developers, Autonomous Vehicle Systems Developers, Vision and Sensing Systems Developers, A.I. Business System Developers, Intelligent Process Automation Developers, Intelligent Healthcare System Developers, Smart City Applications Developers, Language System Engineers, Text Mining / Analytics Specialist, Big Data Developers, Games Developers

1. **What are the modules or graduate certificates under Intelligent Systems (IS)?**

#### **Intelligent Reasoning Systems**

**Students will be taught how to build Intelligent Systems that solve problems by computational reasoning using captured domain knowledge and data. Example applications include, question answering systems such as IBM's Watson, personal assistants such as Amazon’s Alexa Skills and game-playing systems such as Google's AlphaGo**

**Courses:**

* **Machine Reasoning**
* **Cognitive Systems**
* **Reasoning Systems**

#### **Pattern Recognition Systems**

**Students will be taught how to design and build systems that make decisions by recognising complex patterns in data. Examples are robotic systems and smart city applications that take as input diverse sensor data streams. These systems will utilise the latest pattern recognition, machine learning and sensor signal processing techniques.**

**Courses:**

* **Problem Solving using Pattern Recognition**
* **Intelligent Sensing and Sense Making**
* **Pattern Recognition and Machine Learning Systems**

#### **Intelligent Robotic Systems**

**Students will be taught the skills required to build Intelligent Systems that will help control the advanced robotic systems, autonomous vehicles and industrial automation that will be central to Industry 4.0.**

**Courses:**

* **Robotic Systems**
* **Developing Autonomous Robots & Vehicles**
* **Human-Robot System Engineering**

#### **Intelligent Sensing Systems**

**Students will be taught the skills and techniques required to build Intelligent Sensing Systems that are able to make decisions based on visual and audio sensory signals, including human speech. Example systems include crowd monitoring, facial recognition, medical sensing, robot and vehicle control.**

**Courses:**

* **Vision Systems**
* **Spatial Reasoning from Sensor Data**
* **Speech and Sound Sensing Systems**

#### **Intelligent Software Agents**

**Students will be taught how to build intelligent software agents that can act on behalf of, and replicate the actions of, humans in commercial and business transactions as well as automate business processes. Example systems include intelligent personal assistants, intelligent shopping agents as well as intelligent agents performing robotic process automation.**

**Courses:**

* **Intelligent Process Automation**
* **Software Robots**
* **Self-Learning Systems**

#### **Practical Language Processing**

**Students will be taught advanced skills in practical language processing. This includes fundamental text processing, text analytics, deep learning techniques and their application in sentiment mining and chatbots development.**

**Courses:**

* **Text Analytics**
* **New Media and Sentiment Mining**
* **Text Processing using Machine Learning**
* **Service Chatbots**

1. **Who are the lecturers teaching Intelligent Systems (IS)?**

# Dr. Barry Adrian SHEPHERD, Dr. FAN Zhen Zhen, Mr. GU Zhan, Dr. TAN Jen Hong, Dr. TIAN Jin, Dr. WANG Aobo, Dr. ZHU Fang Ming

1. **Are projects compulsory for Intelligent Systems (IS)?**

#### A central element of the MTech programme is the project module.

Student projects for MTech IS students extend over a period of three months for full-time students and one year for part-time students. Full-time students are allowed to conduct their project as a team-based internship if desired. The expected commitment for the project is 60 man-days per team member.

1. **Is internship compulsory for Intelligent Systems (IS)?**

Our student internships last between 5-months to 1 year, depending on the programmes and study format. The substantial time spent with companies ensures depth of experience and benefit for both our students and the companies they work for. This allows students to apply what they have learnt in their coursework to real-life work environments, and develop deeper industry insights as well as maturity for their future careers. Through this, companies tap on trained and motivated talents to fulfill the resource needs of the organisation.

1. **What are the objectives for Intelligent Systems (IS)?**

Acquire hands-on experience in defining and analysing the knowledge and data requirements of real-world business problems. Plan and strategise high-value intelligent systems projects to provide identifiable benefits to the internship company. Design, develop and implement Intelligent Systems through the effective use of Artificial Intelligence and Knowledge Engineering tools and techniques

1. **What are the learning outcomes for Intelligent Systems (IS)?**

Conduct requirements analysis using a structured approach. Produce high-quality intelligent systems following industry best practices and methodologies. Proficient in the use of knowledge and data engineering tools and techniques to deliver optimal business value

1. **What is the course duration for Intelligent Systems (IS)?**

Full-time 1 year (2 semesters)

Part-time 2 years (4 semesters)

1. **When is the next intake for Intelligent Systems (IS)?**

Jan 2020 (Part-time)

1. **When is the application deadline for Intelligent Systems (IS)?**

15 September 2019 (Application starts on 1 June 2019)

1. **Is there any recognition given for Intelligent Systems (IS)?**

Top student is awarded the SPH Medal and Prize. Best Project Prize is award to the best project team.

1. **Where can I get the brochure for Intelligent Systems (IS)?**

You may download the brochure here :https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/mtech\_is\_brochure\_oct2018.pdf?sfvrsn=2

1. **How are the students evaluated for Intelligent Systems (IS)?**

Students are evaluated through a combination of course work, project work and examinations. All students are required to complete a three-hour examination for each fundamental and specialist module taken.

Students who fail a module will be asked to withdraw. A minimum average grade across all examinations and practice assessments must be achieved to be awarded the degree.

1. **Any subsidy provided for Intelligent Systems (IS)?**

Subsidy is provided by skillsfuture if you are a Singaporean or PR and have not gotten any prior subsidy.

1. **Which programming language do we use for Intelligent Systems (IS)?**

Various programming languages, especially python and R.

1. **What are the pre-requisites for for Intelligent Systems (IS)?**

* **Bachelor's degree preferably in Science or Engineering and a grade point average of at least B**
* **Proficiency in the English Language (written and spoken)\***
* **Have passed an entrance test**
  1. **NUS-ISS may, at its discretion, accept** [**GRE general test**](http://www.gre.org/) **in lieu of NUS-ISS entrance test in genuine cases e.g. a candidate lives in a country where NUS-ISS does not administer entrance tests or candidate had valid reasons that prevented him/her from attending the NUS-ISS entrance test when it was administered**
  2. **A sample of the entrance test can be found [here](https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/mtech-sample-entrance-test.pdf)**
* **Preferably two years relevant working experience**
  1. **As an IT professional, such as software developer, business analyst, or as a domain expert, working in an area where Intelligent Systems and Knowledge Engineering can be applied**
  2. **Candidates with highly relevant IT degrees, with consistently good academic records and good practical software development knowledge gained either through course work, course projects or professional IT certifications, may be granted a work experience waiver**
* **Have received a favourable assessment at admissions interview conducted by NUS-ISS**

# FAQ for Enterprise Business Analytics (EBAC)

1. **Can I have some course information of** Enterprise Business Analytics (EBAC)**?**

The NUS Master of Technology in Enterprise Business Analytics programme (MTech EBAC) is specifically designed to meet the industry demand for data scientists who can help organisations achieve improved business outcomes through data insights. It is best suited for professionals seeking to focus on the following - methodical data exploration and visualisation, diagnostic analytics, predictive modelling using statistical and machine learning techniques, text analytics, recommender systems, and big data engineering, etc.

The MTech EBAC programme prepares students for specialist, expert and leadership roles in enterprise business analytics to create business value through strategic use of data, analytics, models and frontline tools.

By contributing to more effective utilisation and management of data analytics, you can help your enterprise to focus on big decisions so that they gain better predictive ability that can translate to higher profits. Helping enterprises to build better and more effective models will lead to improved outcomes such as more attractive pricing, higher levels of customer care, better market segmentation, and highly-efficient inventory management and finally profit maximization.

1. **How do I go about applying for** Enterprise Business Analytics (EBAC)**?**

All applicants are required to submit an online application for our graduate coursework programme (through-train).

**Step 1:** You can refer to our detailed [**step-by-step guide**](http://www.nus.edu.sg/registrar/info/gd/Applicant-Guide-For-Graduate-Admission-System.pdf) on how to complete the online application at <http://www.nus.edu.sg/registrar/info/gd/Applicant-Guide-For-Graduate-Admission-System.pdf>

**Step 2:** It will take you about 30 minutes or more to complete your application. You will need the softcopies of the supporting documents for your online application. Click [**here**](https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/mtech-document-checklist-amp-information.pdf?sfvrsn=2) for the supporting documents to be uploaded and additional information required.

**Step 3:** You can proceed to[**apply online**](https://inetapps.nus.edu.sg/GDA2/Home.aspx) at <https://inetapps.nus.edu.sg/GDA2/Home.aspx> . Remember to **upload all the required supporting documents** under the “**Documents Upload**” section **before** you do the online submission.

**Step 4:** Please ensure you **submit** your online application(s) and make **online payment** for the application fee (non-refundable) of **S$50.00** per application (*inclusive of prevailing GST*).

1. **What are the career prospects for** Enterprise Business Analytics (EBAC)**?**

As an MTech EBAC graduate, you will be prepared for specialist, expert and leadership roles in enterprise business analytics to create business value through strategic use of data, visualisation methods, modelling techniques and frontline tools as a Business Analytics Manager, Data Scientist and Architect, Business Analyst, Optimisation Strategy Consultant, Business Intelligence and Performance Management Consultant, Enterprise Intelligence Manager, Market Intelligence Analyst, CRM Data Analyst, Risk Analyst, Marketing Analyst or Big Data Analyst.

1. **What are the modules or graduate certificates under** Enterprise Business Analytics (EBAC)**?**

#### **Analytics Project Management and Delivery**

**Students will be equipped with practice-oriented data analytics skills and knowledge in managing analytics project. Participants will be equipped with essential skillsets to understand analytics processes and best practices, to manage data and resources, to uphold data governance, to understand structure of analytics solution, to perform data visualisation, to present insights via compelling data storytelling, and to ensure successful implementation of analytics project.**

**Courses:**

* **Data Analytics Process and Best Practices**
* **Data Storytelling**
* **Data Governance & Protection**
* **Managing Business Analytics Projects**

#### **Core Analytics Techniques**

**Students will learn the foundation skills to understand, design and solve analytics problems in the industry involving structured and unstructured data. It is a course which prepares the participants to embark upon the journey to become a data scientist in due course.**

**Courses:**

* **(Data Analytics Process and Best Practices)**
* **Statistics Bootcamp**
* **Predictive Analytics – Insights of Trends and Irregularities**
* **Text Analytics**
* **Recommender Systems**

#### **Customer Analytics**

**Students will be equipped with the skills to manage the customer data and build analytics solutions for customer relationship management. The course will enable them to apply techniques for targeted customer marketing, to reduce churn, increase customer satisfaction and loyalty and increase profitability.**

**Courses:**

* **Customer Analytics**
* **Advanced Customer Analytics**
* **Campaign Analytics**

#### **Big Data Processing**

**Students will learn various aspects of data engineering while building resilient distributed datasets. Participants will learn to apply key practices, identify multiple data sources appraised against their business value, design the right storage, and implement proper access model(s). Finally, participants will build a scalable data pipeline solution composed of pluggable component architecture, based on the combination of requirements in a vendor/technology agnostic manner. Participants will familiarize themselves on working with Spark platform along with additional focus on query and streaming libraries.**

**Courses:**

* **Feature Engineering & Analytics using IoT Data**
* **Graph & Web Mining**
* **Big Data Engineering**

#### **Practical Language Processing**

**Students will be taught advanced skills in practical language processing. This includes fundamental text processing, text analytics, deep learning techniques and their application in sentiment mining and chatbots development.**

**Courses:**

* **Text Analytics**
* **New Media and Sentiment Mining**
* **Text Processing using Machine Learning**
* **Conversational Interfaces**

#### **Advanced Predictive Modelling Techniques**

**Students will be taught the advanced concepts of predictive modeling and Time Series Forecasting and their application in few special areas like Health Care & Service Industry in addition to other domains like Public Services, IT Services, Finance, Airlines, Logistics, Transport, Hotel & Tourism Industries. The topics include GLM, ARIMA & SARIMA, Transfer Functions, Survival Analysis, Image Analysis for Health Care, Management of Health & Medical Data, Service Quality Frame Work, Service Process Improvement Techniques etc.**

**Courses:**

* **Service Analytics**
* **Generalized Predictive Modeling & Forecasting**
* **Health Analytics**

1. **Who are the lecturers teaching** Enterprise Business Analytics (EBAC)**?**

Mr. Brandon NG, Mr. Charles PANG, Mr. Eric THAM, Dr. LEONG Mun Kew, Mr. Nirmal Raja PALAPARTHI, Mr. Prakash Chandra SUKHWAL, Mr. Rajnish TULI, Dr. Rita CHAKRAVARTI

1. **Are projects compulsory for** Enterprise Business Analytics (EBAC)**?**

#### A central element of the MTech programme is the project module.

Student projects for MTech EBAC students will include intense full time engagement of 3 months with companies for full time students. For part-time students the internship engagement will be for 6-12 months. Students are allowed to conduct their project as a team-based internship if desired. The expected commitment for the project is 30 man-days per team member.

1. **Is internship compulsory for** Enterprise Business Analytics (EBAC)**?**

Yes. Our student internships last between 5-months to 1 year, depending on the programmes and study format. The substantial time spent with companies ensures depth of experience and benefit for both our students and the companies they work for. This allows students to apply what they have learnt in their coursework to real-life work environments, and develop deeper industry insights as well as maturity for their future careers. Through this, companies tap on trained and motivated talents to fulfill the resource needs of the organisation.

1. **What are the objectives for** Enterprise Business Analytics (EBAC)**?**

#### Graduates of the programme will be capable of undertaking tasks such as:

* 1. Discovering insights from data
  2. Applying concepts and techniques to solve major business problems
  3. Designing and customizing marketing campaigns through efficient targeting
  4. Analysing sales channels
  5. Optimising the marketing mix of their organisations
  6. Improving decision-making to increase returns on investments for their organisations
  7. Predicting the future profitability of their organisations
  8. Automate production fault detection in manufacturing using predictive modelling

1. **What are the learning outcomes for** Enterprise Business Analytics (EBAC)**?**
   1. Help enterprises move towards a stronger emphasis on computer tools and statistical and machine learning techniques to develop high-performance analytics capability
   2. Translate massive and complex unstructured data (e.g.: text) into insights
   3. Produce predictive models to solve a broad range of problems across various business functions and units
   4. Contribute to the development of more effective business strategies and plans for sustainable growth and competitive advantage
2. **What is the course duration for** Enterprise Business Analytics (EBAC)**?**

Full-time 1 year (2 semesters)

Part-time 2 years (4 semesters)

1. **When is the next intake for** Enterprise Business Analytics (EBAC)**?**

Jan 2020 (Part-time)

1. **When is the application deadline for** Enterprise Business Analytics (EBAC)**?**

15 September 2019 (Application starts on 1 June 2019)

1. **Is there any recognition given for** Enterprise Business Analytics (EBAC)**?**

Top student is awarded the SPH Medal and Prize. Best Project Prize is award to the best project team.

1. **Where can I get the brochure for** Enterprise Business Analytics (EBAC)**?**

You may download the brochure here :<https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/mtech_is_brochure_oct2018.pdf?sfvrsn=2>

1. **How are the students evaluated for** Enterprise Business Analytics (EBAC)**?**

Students are evaluated through a combination of course work, project work and examinations. All students are required to complete a three-hour examination for each fundamental and specialist module taken.

1. **Any subsidy provided for** Enterprise Business Analytics (EBAC)**?**

Subsidy is provided by skillsfuture if you are a Singaporean or PR and have not gotten any prior subsidy.

1. **Which programming language do we use for** Enterprise Business Analytics (EBAC)**?**

Languages with data science libraries available are taught and used in the course. This includes languages such as Python and R.

1. **What are the pre-requisites for** Enterprise Business Analytics (EBAC)**?**
   1. Bachelor's degree preferably in Mathematics, Statistics, Econometrics, Management Science, Operational Research, Science or Engineering and a grade point average of at least B
   2. Proficiency in the English Language (written and spoken)\*
   3. Have passed an entrance test
      1. NUS-ISS may, at its discretion, accept [**GRE general test**](http://www.gre.org/) in lieu of NUS-ISS entrance test in genuine cases e.g. a candidate lives in a country where NUS-ISS does not administer entrance tests or candidate had valid reasons that prevented him/her from attending the NUS-ISS entrance test when it was administered
      2. A sample of the entrance test can be found **[here](https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/mtech-sample-entrance-test.pdf)**
   4. Preferably two years relevant working experience
      1. IT, engineering and scientific professionals would make ideal candidates
      2. Candidates with highly relevant degrees in Mathematics, Statistics, Econometrics, Management Science, Operational Research or similar, with consistently good academic records may be granted a work experience waiver
   5. Have received a favourable assessment at admissions interview conducted by NUS-ISS

# FAQ for Software Engineering (SE)

1. **Can I have some course information of** Software Engineering (SE)**?**

The NUS Master of Technology in Software Engineering is designed to meet the industry demand for software engineers who can help Singapore organisations to realise the smart nation initiatives through building robust, reliable and scalable software systems. This programme is best suited for individuals who have a few years of experience in software engineering roles and are looking to further enhance their knowledge and skills in architecting scalable, secure and smart software systems.

The MTech SE programme emphasises the skills required for architecting scalable, secure and smart systems and platforms. The focus will also be exploitation of software technologies, methodologies and management techniques. It focuses on the practical and systematic construction of software systems, using innovative and state-of-the-art techniques..

The programme will equip you with the essential knowledge and practical experience to architect, design, build and manage the delivery of robust software systems for your organisation and customers.

1. **How do I go about applying for** Software Engineering (SE)**?**

You can start applying in <https://www.iss.nus.edu.sg/graduate-programmes/programme/detail/master-of-technology-in-software-engineering>

1. **What are the career prospects for** Software Engineering (SE)**?**

Software Architect (general, smart systems, data), Senior Software Engineer, Data Architect, Product Manager

1. **What are the modules under** Software Engineering (SE)**?**

**Fundamental :**

**Architecting Scalable Systems**

Students will learn how to architect scalable, robust and reliable ubiquitous systems using the latest Cloud-based technology. Techniques to automate and engineer DevOps pipelines and architecting platforms will also be covered. Students will also focus on how to architect the back-end support for large systems and platforms.

**Courses:**

Cloud Native Solution Design

Architecting Software Solutions

DevOps Engineering and Automation

Platform Engineering

**Specialist :**

**Architecting Smart Systems**

Students will learn skills and techniques required to engineer end-to-end Intelligent Smart Systems. Topics in architecting smart IoT platforms and systems that are scalable will be covered. Students will learn to design, develop and integrate systems that make sense of data from a variety of sensors and edge devices. Students will also learn to create interfaces to smart systems that are apt for interacting with humans in intelligent manners.

**Courses:**

Architecting IoT Solutions

Designing Intelligent Edge Computing

Humanizing Smart Systems

**Designing and Managing Products and Platforms**

Students will learn how to design and manage software products and platforms. The key components include using design thinking principles and market research to innovate and concretize product ideas; a framework to scaffold the multidisciplinary aspects of managing a product; develop a product strategy that aligns with business goals and to architect a platform business model from first principles. Students can expect a hands-on approach, engaging class dialogues, lectures and offline study. Valuable insights will be shared by industry practitioners.

**Courses:**

Strategic Product Manager

Service Design

Digital Product Strategy

**Architecting Platforms as a Business**

Engineering Big Data

Students will learn various aspects of data engineering and processes required for building resilient distributed datasets. Students will also learn to apply key practices, identify multiple data sources appraised against their business value, design the right data storage model(s), and implement fitting data access patterns. Finally, Students will build a scalable data pipeline composed of pluggable functional compute components based on the business insight requirements in a vendor/technology agnostic manner. Students will work with Spark and Hadoop framework along with detailed focus on graph, ML, query and streaming libraries.

**Courses:**

Information Architecture for Data-driven Insights

Big Data Engineering for Analytics

Architecting Systems for Real-Time data processing

**Securing Ubiquitous Systems**

Students will be equipped with skills to design and manage cyber security for ubiquitous systems that need to be highly secure . Students will learn about cyber security and its application in securing mobile systems and software platforms. Students will also learn how to incorporate security during the software development lifecycle.

**Courses:**

(ISC)2 CISSP CBK Training Seminar

Design Secure Mobile Architecture

Platform Security

Secure Software Development Lifecycle for Agile

1. **What are the graduate certificates under** Software Engineering (SE)**?**

Graduate Certificate in Architecting Scalable Systems

Graduate Certificate in Architecting Smart Systems

Graduate Certificate in Designing and Managing Products and Platforms

Graduate Certificate in Engineering Big Data

Graduate Certificate in Securing Ubiquitous Systems

1. **Who are the lecturers teaching** Software Engineering (SE)**?**

Mr. CHIA Yuen Kwan, Dr. Esther TAN, Mr. HENG Boon Kui, Mr. Kenneth PHANG, Mr. LEE Chuk Munn, Dr. LEONG Mun Kew, Ms. Lisa ONG, Mr. Prasanna VEERAPANDI, Dr. Suriya Priya ASAITHAMBI, Ms. Swarnalatha ASHOK, Mr. TAN Cher Wah, Mr. Yunghans IRAWAN

1. **Are projects compulsory for** Software Engineering (SE)**?**

Yes

Student projects for MTech SE students extend over a period of 3 months for full-time students and one year for part-time students. Full-time students are allowed to conduct their project as a team-based internship if desired. The expected commitment for the project is 45 man-days per team member.

1. **Is internship compulsory for** Software Engineering (SE)**?**

Yes.

Student projects for MTech SE students extend over a period of 3 months for full-time students and one year for part-time students. Full-time students are allowed to conduct their project as a team-based internship if desired. The expected commitment for the project is 45 man-days per team member.

1. **What are the learning outcomes for** Software Engineering (SE)**?**

* Become software architects capable of architecting and designing systems that exploit major contemporary software platforms, technologies and methodologies
* Become software architects capable of architecting and designing smart and secure systems
* Become data architects equipped with data engineering skills to engineer big data from a variety of sources

1. **What is the course duration for** Software Engineering (SE)**?**

Full-time 1 year (2 semesters)

Part-time 2 years (4 semesters)

1. **When is the next intake for** Software Engineering (SE)**?**

Jan 2020 (Part-time)

1. **When is the application deadline for** Software Engineering (SE)**?**

15 September 2019 (Application starts on 1 June 2019)

1. **Is there any recognition given for** Software Engineering (SE)**?**

* Top student is awarded the Accenture Medal and Prize
* Top project team is awarded the Best Project Prize

1. **Where can I get the brochure for** Software Engineering (SE)**?**

[**https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/se-brochure-path.pdf?sfvrsn=4**](https://www.iss.nus.edu.sg/docs/default-source/3.0-graduate-programmes/se-brochure-path.pdf?sfvrsn=4)

1. **How are the students evaluated for** Software Engineering (SE)**?**

Students are evaluated through a combination of course work, project work and examinations. All students are required to complete a three-hour examination for each fundamental and specialist module taken.

Students who fail a module will be asked to withdraw. A minimum average grade across all examinations and practice assessments must be achieved to be awarded the degree.

1. **Any subsidy provided for** Software Engineering (SE)**?**

Subsidy is provided by skillsfuture if you are a Singaporean or PR and have not gotten any prior subsidy.

1. **What are the pre-requisites for** Software Engineering (SE)**?**

* Bachelor's degree preferably in Science or Engineering and a grade point average of at least B
* Proficiency in the English Language (written and spoken)
* Have passed an entrance test. NUS-ISS may, at its discretion, accept GRE general test in lieu of NUS-ISS entrance test in genuine cases e.g. a candidate lives in a country where NUS-ISS does not administer entrance tests or candidate had valid reasons that prevented him/her from attending the NUS-ISS entrance test when it was administered
* Preferably four years relevant working experience as a software engineer e.g. programmer, designer, technical team lead
* Candidates who have lesser than four years relevant experience with good practical software engineering knowledge gained either through course work, course projects or work experience may be considered
* Have received a favourable assessment at admissions interview conducted by NUS-ISS

# FAQ for Technology in Digital Leadership

1. **Can I have some course information of** Digital Leadership**?**

This digital strategy and leadership programme prepares students to become leaders who can develop and lead strategies to transform their business to thrive in the new digital economy.

This MTech DL programme that focus on digital strategy and leadership will equip students with the critical thinking, hard and soft skills to become an effective leader. It will accelerate their career and enhance one's ability to take on greater roles and responsibilities in digital leadership. Students will be equipped with the right processes and people capabilities to ride the digital wave and to thrive in the digital economy. Our goal is also to help organisations to develop its next generation of IT and digital leaders.

1. **How do I go about applying for** Digital Leadership**?**

Apply at <https://www.iss.nus.edu.sg/graduate-programmes/programme/detail/master-of-technology-in-digital-leadership>

1. **What are the career prospects for** Digital Leadership**?**

Chief Technology Officer, Chief Information Officer, Chief Digital Officer, IT Director

, Strategic Digital Planning Director, Program Director, Digital Marketing Director

1. **What are the modules under** Digital Leadership**?**

**Practice of Digital Business**

Learn what is digital business and the different models of digital transformation and innovation. Analyse business models of platforms and software disruptors with case studies from diverse industries and how digital business create, deliver, capture and defend value. Understand digital agility and change imperatives for competitive advantage. Explore what are the emerging trends and the underlying economics of market disruptions, innovation and technologies

**Courses:**

Digital Organisation Models

Digital Agility & Change Leadership

Innovation by Design

**Digital Transformation**

Embark on the journey to create and transform into digital business. Analyse through strategic thinking and foresight what transformation means for the business, what drives innovation by design and what it takes to win in a digital age. Use relevant frameworks to identify key areas to transform including integrated strategy, core processes and enabling technologies. Understand practical approaches to move from a legacy to a digital business. Learn the “how-to” with design of product portfolio, operating model and digital architecture.

**Courses:**

Strategic Thinking & Foresight

Digital Business Strategy

Mastering Digital Architecture

**Digital Leadership & People**

Develop leaders with strategic thinking and team building skills. Understand the type of talents, competencies and capabilities needed to lead a cross organisational digital business strategy and transformation effort. Develop the compact needed to establish and support high performance transformation team and to sustain the digital culture. Learn about leadership and challenges in managing complexity and digital governance.

**Courses:**

Talent & Leadership Pathways

Managing Digitalisation Complexity

Digital Governance

**Digital Leadership Capstone**

A highlight of the programme is the 9-month Digital Leadership Capstone project that brings together all the disciplines that students have encountered in the programme. Students reflect, apply and synthesise the knowledge, skills and techniques that they have learnt in class and apply to a real-life organisation. They will integrate what they have learnt with how they, as the Digital Leader, will have to perform digital business transformation and solve real-world problems for a target organisation. Students will work in groups and are mentored by industry advisors to deliver the capstone project.

1. **What are the graduate certificates under** Digital Leadership**?**

* Practice of Digital Business
* Digital Transformation
* Digital Leadership & People

1. **Who are the lecturers teaching** Digital Leadership**?**

Ms. Angela HUANG, Mr. NG Kok Leong, Mr. Nicholas TAN, Ms Sharon LAU,

Mr. TAN Chi Siong, Mr. TAN Eng Tsze, Mrs. TAN Lay Ngan, Mr. TAN Peng Wei, Mr. YU Chen Kuang

1. **Are projects compulsory for** Digital Leadership**?**

Yes, student will extend over a period of 9 months for part-time students. Students will work in groups to perform the capstone project, with an expected student commitment of 40 man-days per team member.

1. **Is internship compulsory for** Digital Leadership**?**

No, there is no internship for this programme

1. **What are the learning outcomes for** Digital Leadership**?**

* Understand the practice of digital business models
* Develop leadership skills to lead the digital journey and drive breakthrough change for organisation
* Create effective plans to bring about digital transformation in the business for competitive advantage
* Embrace strategic thinking, innovation and effective communication

1. **What is the course duration for** Digital Leadership**?**

Part-time 2 years (4 semesters)

1. **When is the next intake for** Digital Leadership**?**

January 2020

1. **When is the application deadline for** Digital Leadership**?**

30 September 2019

1. **Is there any recognition given for** Digital Leadership**?**

N.A.

1. **Where can I get the brochure for** Digital Leadership**?**

N.A.

1. **How are the students evaluated for** Digital Leadership**?**

Students are evaluated through a combination of continuous assessments, class participation, case studies and output from the capstone project. The programme is a 44 modular credit (MC) Master degree based on four major study areas: Practice of Digital Business, Digital Transformation, Digital Leadership & People and Digital Leadership Capstone. The curriculum strikes a balance between building deep leadership capabilities and functional skills and will be complemented by activities outside the classroom to reinforce learning.

1. **Any subsidy provided for** Digital Leadership**?**

Subsidy is provided by skillsfuture if you are a Singaporean or PR and have not gotten any prior subsidy.

1. **What are the pre-requisites for** Digital Leadership**?**

* A bachelor’s degree from an accredited institution preferably in Science, Engineering, Computing, Business or a related discipline and a grade point average of at least B
* A minimum of 5 years of full-time work relevant work experience after first degree
* Demonstrate proficiency in English (written and spoken)
* Have received a favourable assessment at admissions interview conducted by NUS-ISS. Admission is on a competitive basis and preference will be given to applicants with related job experiences