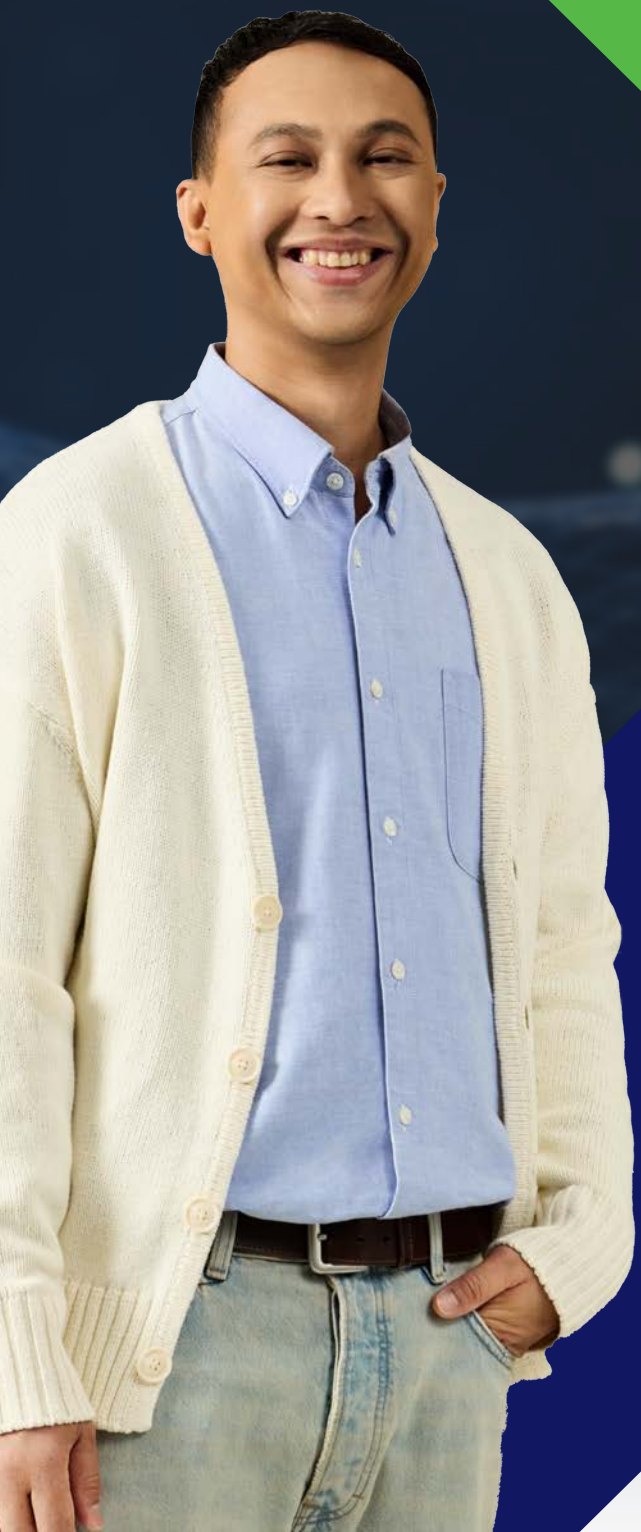
SCHOOL OF SCIENCE AND TECHNOLOGY



Graduate Programmes

SUSS
SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

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SCHOOL OF SCIENCE AND TECHNOLOGY

A MESSAGE from the DEAN

“Welcome to SST!
I invite you to make the leap and expand your skills and knowledge at SST. I look forward to meeting you on campus.”

Associate Professor
CHUI YOON PING
Dean
School of Science and Technology

DREAM, DARE, DO.

SUSS is a powerhouse of change, unleashing the potential within individuals and propelling them to be impactful change-makers.

Fueled by a deep sense of purpose, their transformations transcend personal growth, enriching not only their lives but also the lives of those around them.

Their unwavering commitment empowers them to conquer challenges, embodying the unstoppable ‘**Dream, Dare, Do**’ spirit of SUSS.

United in action, we dream big, dare greatly, and do what it takes to leave an indelible mark on our learners, industry, and community.

The School of Science and Technology (SST) provides students with a rigorous curriculum, industry-relevant training and career-advancing degree programmes.

Over the past decade, SST has built up a wide industry network, both locally and internationally, to align its degree programmes’ curricula with world-renowned companies and institutions of higher learning to produce highly industry-relevant training and a rigorous education for our students. Learning first-hand from local and international academics and practitioners, and tapping into the business acumen of successful industry leaders, our students not only attain knowledge beyond the textbook but also expand their network and net worth through engagement with these esteemed teaching faculties. Our inclusive, immersive and in-employment education transforms SST graduates into professionals equipped with relevant knowledge, employable skills and practical work experience.

The school is proud that many of the programmes it offers, such as Aerospace Systems, Building Project Management, Electronics, Events Management, Facilities Management and Human Factors in Safety are accredited by renowned local and international accreditation bodies. Moreover, many SST programmes are also unique — they fill niches not occupied by institutions of higher learning, giving our graduates a competitive edge in employment.

Our school leverages on technology to empower students with a flexible learning path, where they decide when and how they want to learn. Choose from a list of exciting undergraduate degree programmes and allow SUSS to help open the door of opportunities for you.

10 Good Reasons to Study at Singapore University of Social Sciences

ONE OF THE SIX AUTONOMOUS UNIVERSITIES IN SINGAPORE

HIGH ACADEMIC STANDARDS

OVER 47,000 ALUMNI

LIFELONG EDUCATIONAL OPPORTUNITIES

FLEXIBLE AND SELF-PACED LEARNING

EXPERIENCED FACULTY MEMBERS AND INDUSTRY EXPERTS

FOCUS ON REAL-WORLD LEARNING

WELL-DESIGNED ONLINE LEARNING RESOURCES

INDUSTRY-RELEVANT CURRICULA

PRACTICE-ORIENTED APPROACH

ARTIFICIAL INTELLIGENCE OF THINGS

(Graduate Certificate | Graduate Diploma)

Find out more

Programme Overview

The SUSS graduate programmes in Artificial Intelligence of Things (AIoT) are specialised programmes designed to equip students with the fundamentals of IoT devices, IoT networks, data collection, data management and business models.

Artificial intelligence (AI) is the key for leveraging the information contained in the data collected from IoT systems. AI and IoT are the cornerstones for digital transformation across industries like healthcare, smart cities, agriculture, logistics, and manufacturing. Artificial Intelligence of Things (AIoT), which is a combination of AI and IoT, enables the provisioning of smart and connected solutions by combining the asset intelligence (from AI) and swarm intelligence (from IoT).

The programmes allow students to excel in the dynamic and rapidly evolving field of AI and the IoT, providing a unique educational experience that empowers students to harness the full potential of smart and connected solutions.

The Graduate Diploma in Artificial Intelligence of Things can be stacked as a specialisation track to the Master of Management programme offered by the SUSS School of Business.

Whom is this for?

A Graduate Diploma in Artificial Intelligence of Things is typically designed for individuals with varying educational and professional backgrounds, including information technology, business management, marketing, sales, and entrepreneurship, who are looking to gain hands-on skills in the field of AIoT and develop/implement smart services in their respective industries. Students must have a keen interest in coding; a basic understanding on communication systems and working of internet; and interest in building simple electronic systems.

Career Prospects

The specialised skills acquired during the Graduate Diploma in Artificial Intelligence of Things programme, including sensor technology, networking, business models, AI and cloud computing, open up a wide range of career opportunities in various industries and sectors, including manufacturing, healthcare, supply chain, facility management, industry 4.0, smart city and many more where AIoT solutions continue to drive innovation and transformation. Graduates can pursue roles such as IoT Firmware Engineer, IoT System Engineer, IoT Architect, IoT Developer, AI Engineer and R&D engineer.

Programme Structure

Graduate Diploma in Artificial Intelligence of Things (GDAIoT) students are required to complete 30 credit units (CU) of coursework. However, students can also opt to exit with the Graduate Certificate in Internet of Things (GCIoT) upon completion of 15 CU of courses and maintain a minimum CGPA of 2.5. Students who complete the specified 30 CU and maintain a minimum CGPA of 2.5 are eligible for the GDAIoT. Courses are based on a 5 CU configuration unless stated otherwise.

The candidature for GDAIoT has a minimum period of one year and a maximum period of two years.

Classes are conducted in the evenings during weekdays and some Saturday mornings or afternoons, so students can continue to work during the day and study in the evenings or at weekends.

Compulsory Courses (Total 15 CU)

- Mathematics for AIoT
- Data Foundations and Visualisation
- Introduction to IoT and Business Models

↓

Graduate Certificate in Internet of Things

+

Compulsory Courses (Total 15 CU)

- Machine Learning
- Deep Learning and Generative AI
- Computer Vision and Robotics

↓

Graduate Diploma in Artificial Intelligence of Things

BUILT ENVIRONMENT
(Master's)

Find out more

Programme Overview

The built environment sector is an essential and irreplaceable segment of the Singapore economy, and has been fast evolving to embrace digitalisation, SMART technology, and sustainability through greater collaboration between the various stakeholders. As facilities, building and infrastructure become more complex, the required competencies and skill sets of its managers compound.

The SUSS graduate programmes in built environment are aimed at equipping graduates with both technical and management skills pertaining to both project management and facilities management, allowing our graduates better versatility and wider career options.

These programmes will be the first in Singapore that focus on both the managerial (project, risk, finance, asset, and facility) and the technical (sustainability, design for manufacturing and assembly (DfMA), productivity and integrated digital delivery (IDD)) aspects of the built environment sector, and are aimed at equipping graduates with both technical and management skills pertaining to project management, facilities management or both.

Some of the modular courses can qualify for Continuing Professional Development (CPD) points to fulfil accreditation requirements for the Society of Project Managers (SPM) or the Singapore Contractors Association Limited (SCAL). FMT505 offers Tier 4 provisional accreditation under building SMART Singapore DDM Accreditation Scheme.

Whom is this for?

The Master in Built Environment (MBE-SPE) is for aspiring in-service and career transition personnel who wish to take up managerial and leadership roles in the built environment sector and lead the industry in this transformative era.

Career Prospects

Graduates from the MBE-SPE programme will be equipped with knowledge from both Project and Facilities Management. They will be recognised by industry partners and will have a wide range of career options in both construction and facilities management firms. The MBE-SPE programme will help student rise to the requirements of managerial roles in their workplace.

Programme Structure

To graduate with the MBE, students are required to complete 60 credit units (CU) of courses. Students have to maintain a minimum Cumulative Grade Point Average (CGPA) of 3.0 in their coursework in order to obtain the master's degree. There are three modes of admission into MBE.

Direct Admission
Direct admission is open to Singapore citizens, permanent residents, or residents in Singapore. Students can apply for MBE-SPE via Admission Office. Students on MBE-SPE may take a maximum of 20 CU of courses per semester and complete the programme in maximum four years.

From GDPM or GDFMT (Stackable)
Students who have completed either GDPM or GDFMT with a minimum GPA of 3.0 will receive a letter of invitation after the release of exam results to apply for MBE-SPE. The maximum candidature remains to be four years from the date of entry into GDPM or GDFMT.

Accelerated Pathway
The accelerated pathway (MBE-SPE-A) is open to Singapore citizens, permanent residents, other residents, as well as international students. It is compulsory for international students to enter via the accelerated pathway. Students on the accelerated pathway take 30 CU of courses on average per semester and complete the programme in one year.

Project Management Courses (Total 30 CU)

- BPM501 International Construction Project Management
- BPM502 Project Financing in Built Environment
- BPM503 Project Risk Management in Construction Projects
- BPM504 Advanced Construction Technologies for Productivity
- BPM505 Collaborative Contracting in Built Environment
- FMT505 Integrated Digital Delivery in Built Environment

OR

Facilities Management Courses (Total 30 CU)

<u>Compulsory Courses</u>

- FMT502 Low Energy and Energy Efficient Buildings
- FMT503 Managing Buildings for Health and Wellness
- FMT504 Asset Management for FM
- FMT505 Integrated Digital Delivery in Built Environment

<u>Elective Courses</u>

- FMT501 Circular Sustainable FM
- FMT506 Managing SMART and Autonomous Buildings
- FMT511 Planning and Managing Healthcare Facilities

↓ ↓

Graduate Diploma in Project Management **OR** **Graduate Diploma in Facilities Management**

+

Complete another 20 CU from either PM Basket or FM Basket

+

Graduate Unrestricted Electives (Choose 10 CU)

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Master of Built Environment

FACILITIES MANAGEMENT

(Graduate Certificate | Graduate Diploma)

Find out more

Programme Overview

The Graduate Diploma in Facilities Management is an industry collaborative programme that is aligned with the Industry Transformation Map (ITM) and the SkillsFuture Framework for the Built Environment. The graduate programme will be the first in Singapore that focuses on both the managerial (project, risk, finance, asset, and facility) and the technical (sustainability, design for manufacturing and assembly (DfMA), productivityandintegrateddigitaldelivery (IDD) aspects of the Built Environment sector. The programme aims to equip FM graduates and practitioners with new skills and competencies to manage complex and large scale building assets in a sustainable and resilient manner.

The programme is curated in a stackable and modular way so that students can choose to study individual courses which can be accumulated to obtain a graduate certificate, a graduate diploma or a full master's degree. This flexible arrangement will benefit busy working adults who may not be able to commit a long period of time to obtain a full graduate qualification.

Unique Features of the Programme:

- Classes are taught by experienced academics and senior industry practitioners with many years of relevant expertise in the built environment sector.
- Overseas and local guest speakers will be invited to share valuable knowledge and industry insights.
- The Graduate Diploma in Facilities Management (GDFMT) is stackable from the Graduate Certificate in Facilities Management (GCFM), enabling students to progress seamlessly to either the Master of Management (MMGT-FM) or Master of Built Environment (MBE-SPE).

Whom is this for?

The GDFMT programme is for aspiring FM graduates and practitioners who wants to take up managerial and leadership roles in the FM sector and lead the FM industry in this transformative era.

Career Prospects

Graduates from the GDFMT programme will be recognised by industry partners and the International Facility Management Association (IFMA). They can take up mid-level management and leadership roles in Asset, Property & Facilities Management.

Programme Structure

To graduate with the GDFMT, students are required to complete 30 credit units (CU) which consists of four compulsory core courses and any two elective courses. However, they can also opt to exit with the GCFM upon completion of 15 CU of courses. Most courses are based on a 5 CU configuration unless stated otherwise.

Students have to maintain a minimum Cumulative Grade Point Average (CGPA) of 2.5 in their coursework as part of the fulfilment of the GDFMT programme. Students need a minimum CGPA of 3.0 to proceed to Master of Built Environment or Master of Management.

Classes for the GDFMT programme are held on weekday evenings and some Saturdays. Some classes will have invited guest lecturer from overseas, thus will be conducted on Zoom or another online platform coupled with video conferencing to facilitate effective teaching and learning.

Facilities Management Courses (Total 30 CU)

Compulsory Courses

- FMT502 Low Energy and Energy Efficient Buildings
- FMT503 Managing Buildings for Health and Wellness
- FMT504 Asset Management for FM
- FMT505 Integrated Digital Delivery in Built Environment

Elective Courses

- FMT501 Circular Sustainable FM
- FMT506 Managing SMART and Autonomous Buildings
- FMT511 Planning and Managing Healthcare Facilities

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Graduate Diploma in Facilities Management

HEALTHCARE FACILITIES MANAGEMENT

(Graduate Certificate)

Find out more

Programme Overview

The Graduate Certificate in Healthcare Facilities Management (GCHFM) will ride on the recent increase in healthcare demand and the Government's interest to continue investing in healthcare due to population ageing and growth.

Recognising the critical role of facilities management (FM) in enabling healthcare operations and administration, the GCHFM programme addresses the growing need for professionals with the technical knowledge and management skills required to operate high-performance healthcare facilities in today's complex environments.

Launched in collaboration with SingHealth, the programme will be the first in Singapore to equip graduates with theoretical knowledge and hands-on training in healthcare FM. This partnership provides students with access to real-world healthcare environments and industry expertise, enhancing their practical learning experience.

Upon completion of GCHFM, students can pursue the Graduate Diploma in Facilities Management (GDFMT) followed by the Master of Built Environment (MBE) to prepare graduates for senior roles in Healthcare Facilities Management.

Whom is this for?

The GCHFM programme, developed in collaboration with SingHealth, is designed for professionals in the FM industry seeking to deepen their expertise in healthcare FM. It also caters to built-environment practitioners aspiring to transit into or advance within the dynamic and highly specialised healthcare facilities management sector.

Career Prospects

Graduates of the GCHFM programme can look forward to diverse career opportunities in the rapidly growing healthcare FM sector. Graduates can pursue roles like healthcare facilities manager, operations coordinator, or asset manager, with strong prospects for leadership in public and private healthcare organisations.

Programme Structure

Each course is 5 credit units (CU) and can be taken on a stand-alone basis. Upon successful completion of 15 CU of coursework (three compulsory courses) with a minimum Cumulative Grade Point Average (CGPA) of 2.5, the GCHFM will be awarded. GCHFM graduates can opt to complete another 15 CU to qualify for the GDFMT.

Students need a minimum CGPA of 3.0 to proceed to Master of Built Environment or Master of Management.

Classes for the GCHFM programme are held on weekday evenings and some Saturdays.

Healthcare Facilities Management Courses (Total 15 CU)

- Managing Buildings for Health and Wellness
- Asset Management for FM
- Planning and Managing Healthcare Facilities

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Graduate Certificate in Healthcare Facilities Management

PROJECT MANAGEMENT

(Graduate Certificate | Graduate Diploma)

Find out more

Programme Overview

The Built Environment sector is an essential and irreplaceable segment of the Singapore economy. Even in the face of the COVID-19 pandemic, there is still projected growth and the need to hire remains strong. This is due to the need for skilled professionals to support the Industry Transformation Map (ITM) and embrace sustainability, productivity, digitalisation and new technology.

The Graduate Diploma in Project Management programme will incorporate both technical (sustainability, design for manufacture and assembly, productivity and integrated digital delivery) and managerial (project, risk, finance, asset, and facility) aspects of the Built Environment sector. The programme aims to equip both in-service and career transition personnel with new skills and competencies to embrace the transformative shift and deliver large scale projects in a sustainable manner.

The programmes are fashioned in a stackable and modular way so that students can choose to study individual courses which can be accumulated to obtain a graduate certificate, a graduate diploma or a full master's degree. This flexible arrangement will benefit busy working adults who may not be able to commit a long period of time to obtain a full graduate qualification.

Unique Features of the Programme:

- Course instructors are experienced senior practitioners from the industry
- The Graduate Diploma in Project Management (GDPM) is stackable from the Graduate Certificate in Project Management (GCPM), and students may choose to proceed to either the Master of Management (MMGT-PM) or Master of Built Environment (MBE-SPE).

Whom is this for?

The GDPM programme is for aspiring graduates and practitioners who want to take up managerial and leadership roles in the built environment sector, particularly the construction industry.

Some of the modular courses can qualify for Continuing Professional Development (CPD) points to fulfil accreditation requirements for the Society of Project Managers (SPM), Singapore Contractors Association Limited (SCAL), Professional Engineer Board (PEB) and Singapore Institute of Surveyors and Valuers (SISV).

Career Prospects

Graduates from the GDPM programme will be recognised by industry partners, and professional bodies. They can take up managerial roles in factories producing construction-related components, act as construction and project managers, contract managers and so on.

Programme Structure

To graduate with the GDPM, students are required to complete 30 credit units (CU) consisting of six compulsory core courses. However, they can also opt to exit with the GCPM upon completion of 15 CU of courses.

Courses are based on a 5 CU configuration unless stated otherwise. Students have to maintain a minimum Cumulative Grade Point Average (CGPA) of 2.5 in their coursework in order to obtain the GDPM. Students need a minimum CGPA of 3.0 to proceed to Master of Built Environment or Master of Management.

Classes for the GDPM programme are held on weekday evenings and some Saturday mornings.

Project Management Courses (Total 30 CU)

- International Construction Project Management
- Project Financing in Built Environment
- Project Risk Management in Construction Projects
- Advanced Construction Technologies for Productivity
- Collaborative Contracting in Built Environment
- Integrated Digital Delivery in Built Environment

↓

Graduate Diploma in Project Management

ENGINEERING

(Master's)

Find out more

Programme Overview

The Master of Engineering (MEng) offered by SUSS is a research-based programme primarily intended for science, engineering and technology graduates who:

(a) are interested in pursuing a career in applied research,

(b) seek professional advancement,

(c) wish to enhance their understanding of a particular field or discipline within the domain of science and technology for the benefit of their employing organisation and for social good, and

(d) aspire to contribute to science and technology and gain concomitant recognition of their effort.

The MEng programme focuses on science and technology research with consideration of social impact so that the findings and the skills acquired are useful to the industry and society.

Whom is this for?

The MEng programme is meant for those who aim to contribute to the body of knowledge within the areas of science, engineering and technology.

Career Prospects

Graduates from the MEng programme will have acquired knowledge and skills to function as R&D professionals in industry.

Programme Structure

To graduate with the Master of Engineering, students are required to complete 60 credit units (CU) consisting of four graduate-level courses, a Qualifying Examination, an MEng thesis and an Oral Defence.

The Qualifying Examination (QE) consists of (i) a written report that details the research work done after one year, as well as the plan for future research direction, and (ii) oral defence.

The candidature period for the Master of Engineering programme is two to five years.

Coursework (Total 20 CU)

- Research Methods in Science and Engineering
- Data Analysis
- Seminar Course I
- Seminar Course II

MEng Project

Qualifying Examination

Submission of QE report and an oral presentation of the QE report

↓

Confirmed as MEng Candidate

↓

Data Collection, Analysis and Writing of Thesis

↓

Thesis Examination and Oral Defence

↓

Master of Engineering[1]

Explanatory Notes:

[1] Need a min. cumulative grade point average (CGPA) of 3.0 to be awarded Master of Engineering.

Important Notes:

- All courses are 5 CU unless stated otherwise.
- Students need to maintain a min. CGPA of 3.0 in their coursework as part of the fulfilment of the master's programme.
- The courses listed are subject to change.

ENGINEERING

(PhD)

Find out more

Programme Overview

The Doctor of Philosophy (Engineering) programme is primarily intended for science, engineering and technology graduates who:

(a) are interested in pursuing a career in applied research,

(b) seek professional advancement,

(c) wish to enhance their understanding of a particular field or discipline within the domain of science and technology for the benefit of their employing organisation and for social good, and

(d) aspire to contribute to science and technology at the highest academic level and gain concomitant recognition of their effort and achievements.

The PDENG programme focuses on science, engineering and technology research with consideration of social impact so that the findings and the skills acquired are useful to the industry and society.

Whom is this for?

The PDENG programme is meant for those who aim to contribute to the body of knowledge within the areas of science, engineering and technology at the highest academic level.

Career Prospects

Graduates from the PDENG programme will have acquired the advanced knowledge and skills to function as R&D professionals in industry and academia.

Programme Structure

To graduate with the Doctor of Philosophy (Engineering), students are required to complete 120 credit units (CU) consisting of eight graduate level courses, a Qualifying Examination, a PhD dissertation and an Oral Defence.

The Qualifying Examination (QE) consists of (i) a written report that details the research work done after one year, as well as the plan for future research direction, and (ii) oral defence.

The candidature period for the PDENG programme is three to seven years.

Coursework (Total 40 CU)

Compulsory Courses (Total 30 CU)

- Research Methods in Science and Engineering
- Data Analysis
- Seminar Course I
- Seminar Course II
- Credit Recognition Course I[1]
- Credit Recognition Course II[1]

+

Elective Courses (Choose 10 CU)

- Building Communities and Forging Identities
- Economic and Political Development for Social Well-being
- Foundation IP Law
- IP & Business Strategy
- Social Sector Leadership
- Fundraising and Philanthropy

... and many more.

→

PhD Project

Qualifying Examination

Submission of QE report and an oral presentation of the QE report

↓

Confirmed as PhD Candidate

↓

Data Collection, Analysis and Writing of Dissertation

↓

Dissertation Examination and Oral Defence

↓

Doctor of Philosophy[2]

Explanatory Notes:

[1] 5 CU credit recognition from previously obtained graduate course.

[2] Need a min. cumulative grade point average (CGPA) of 3.0 to be awarded Doctor of Philosophy.

Important Notes:

- All courses are 5 CU unless stated otherwise.
- Students need to maintain a min. CGPA of 3.0 in their coursework as part of the fulfilment of the PhD programme.
- The courses listed are subject to change.

JOIN US

Applicants must possess an undergraduate degree or an equivalent qualification from a recognised institution.

For SUSS graduate programmes that are conducted in the English Language, you must meet the English Language Proficiency Requirement (ELPR)*** if** your undergraduate degree is not awarded by an English-medium university, **or** your undergraduate degree is awarded by an English-medium university but the language of instruction was not English.

* *at least an IELTS (Academic) score of 6.5, or a TOEFL score of 580 (paper-based) or 85 (internet-based), or a PTE Academic score of 58, or C1 Advanced score of 180 [score must be obtained within the last 2 years at point of application].*

Applicants with an undergraduate degree that was conducted in English but awarded by a non-English medium university must produce an official letter from the university to certify as such in order to seek waiver of the ELPR requirement.

Some programmes may have additional requirements. Please refer to the individual programme pages for details.

Shortlisted applicants may be required to undergo one or more interviews and/or take written admission or other evaluation tests as may be prescribed by SUSS from time to time.

All applications are considered individually on merit, and the offer of admission is dependent on the number of places available in individual programmes. Admission is solely at the discretion of SUSS and the decision is final and binding. SUSS reserves the right to refuse admission and is not obliged to offer an explanation for the non-admission of unsuccessful candidates.

SUBMITTING YOUR APPLICATION

Applications are to be made online via suss.edu.sg/apply.

You must submit all the required documents together with your admission application. Incomplete applications will not be considered.

Find out more

TUITION FEES

The amount of course fees you pay in each semester depends on the number of courses you take in that semester. The course fees cover all study materials, classes, tutor supervision, assignments and examinations. They do not include fees for textbooks, and other additional items specified by SUSS from time to time.

Find out more

SCHOLARSHIPS AND SPONSORSHIPS

Committed to the promotion of lifelong learning, SUSS offers a number of scholarships and sponsorships to new and continuing students in recognition of their excellent academic achievements, leadership qualities and special talents and contributions.

Find out more

Please visit **suss.edu.sg** for more details.

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Information is accurate as of December 2025. For the most updated information, please refer to our website.