## SCHOOL OF SCIENCE AND TECHNOLOGY

### Part-time Undergraduate Programmes





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### SCHOOL OF SCIENCE AND TECHNOLOGY



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 TAN TENG HOOI

Dean School of Science and Technology



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

Over the past decade, SST has built up a wide industry network, both locally and internationally, to link its degree programmes' curricula with world renowned companies and institutions of higher learning to produce a highly industry-relevant training and a rigorous education for our students. Learning first-hand from local and international academics and practitioners, and tapping on 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 the relevant knowledge, employable skills and work experience.

The school is proud that many of its programmes offered, such as the Aerospace Systems, Facilities and Events Management, Building and Project Management, Electronics and the Human Factors in Safety, are accredited with renowned local and international accreditation bodies. Moreover, many SST programmes are also unique — they fill niches not occupied by other higher learning institutions to give 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.

# 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.



**Good Reasons** to Study at Singapore University of Social Sciences



**ONE OF THE SIX AUTONOMOUS UNIVERSITIES** IN SINGAPORE



LIFELONG EDUCATIONAL **OPPORTUNITIES** 



LEARNING RESOURCES



**HIGH ACADEMIC STANDARDS** 



**FLEXIBLE AND** SELF-PACED LEARNING



**EXPERIENCED FACULTY** 

**MEMBERS AND INDUSTRY EXPERTS** 

**INDUSTRY-RELEVANT** CURRICULA



**GOVERNMENT TUITION GRANT OR SUBSIDY FOR ELIGIBLE STUDENTS** 



FOCUS ON REAL-WORLD LEARNING



**PRACTICE-ORIENTED** APPROACH

#### BACHELOR OF BUILDING AND PROJECT MANAGEMENT



This programme is a partnership between the Singapore University of Social Sciences (SUSS) and the BCA Academy (BCAA). The programme equips students with a repertoire of specialist knowledge and skills for a productive management of construction projects. Students will be trained in a broad spectrum of competencies including interdisciplinary studies in building design and technology, construction management, international project management, cost management, contract administration, safety management and sustainability.

Programme Overview

The programme is accredited by the Royal Institution of Chartered Surveyors (RICS), UK and the Singapore Institute of Surveyors and Valuers (SISV). It is also a recognised degree for the Quantity Surveying (QS) discipline by the Public Sector Panels of Consultants (PSPC).

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Career Prospects Graduates with a degree in building and project management have a wide range of career opportunities. They will have the flexibility and proficiency to take up roles in areas such as project management, construction management, facility management, cost management/estimation/quantity surveying, procurement, contract administration, etc.

The programme is recognised by professional institutions such as the Royal Institution of Chartered Surveyors (RICS), UK, and Singapore Institute of Surveyors and Valuers (SISV).

This programme is suitable for aspiring project managers, quantity surveyors and practicing professionals in the built environment sector.



#### Programme Structure

To graduate with a basic degree, students are to complete a **total of 130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of Free Electives (course pre-requisites apply).

Curriculum

- Highlights
- Construction Law
- Contract Administration
- Construction IT & Building
   Information Modelling
- Construction/Material Technology
- Construction Project
   Management
- Procurement Management

\*Special Highlights:

- Students who successfully complete the 4 QSM courses will be awarded a Certificate of Measurement of Building Works by SISV.
- A Certificate of Attendance will be awarded by SISV to students who have attended at least 75% of each QSM course.

The Bachelor of Building and Project Management programme is a comprehensive one which has equipped me with essential skills and competencies for roles in construction project management and quantity surveying. Developed and taught by industry experts, the curriculum offers practical learning aligned to industry needs. Leveraging on opportunities provided by my employer, I had the chance to lead and manage large, complex projects."

Chua Chi Kian Alumnus  LCC and Sustainable Design and Construction

- Project Development and Finance
- Project Scheduling and Control
- Cost Management/Construction Measurement across various disciplines (Archi/C&S/M&E)

Programme Offered in

Programme Offered in Collaboration with:

BCA ACADEMY

#### **BEng AEROSPACE SYSTEMS**



The Bachelor of Engineering Aerospace Systems programme combines the knowledge of aerospace engineering, avionics systems and aviation management in a part-time teaching mode, thus allowing students to continue with their daytime work in the aerospace and aviation industry to acquire the practical experience, whilst at the same time being given the opportunity to upgrade their knowledge and skill set both



in depth and breadth. The partnership with a world-renowned aerospace academic institution, Cranfield University, together with local industry partners such as ST Engineering Aerospace and the Republic of Singapore Air Force ensures that the curriculum stays relevant to the industry.

In the area of aerospace engineering, the curriculum is designed to emphasise the disciplines of materials, structures, propulsion, aerodynamics, flight dynamics, control, and manufacturing. In the area of avionics systems, the curriculum consists of a number of electrical and electronic engineering courses and further provides system courses to integrate the knowledge into aircraft system design, operation and maintenance. Finally, the area of aviation management covers various topics across maintenance, airport and airline management.

The programme is designed for practising professionals and graduates with diplomas or GCE 'A' Level. The diploma holders are typically from the courses of aeronautical engineering, mechanical engineering, aerospace electronics, electrical and electronics engineering, mechatronics engineering, manufacturing engineering, and aviation management.

The programme is accredited by the Engineering Accreditation Board (EAB), The Institution of Engineers, Singapore (IES). Through this accreditation, the BEng Aerospace Systems degree is recognised in Singapore and other countries in the Washington Accord.

Students in this programme are eligible to register for student membership with The Institution of Engineers, Singapore (IES). For more information, please visit www.ies.org.sg.

This programme is suitable for working adults in the aerospace and aviation sector, other manufacturing sectors, and the Singapore Armed Forces, as well as students who are keen on enhancing their knowledge, skills and understanding of aerospace and aviation.

Whom is this for?



Career Prospects Equipped with comprehensive knowledge and skills in aerospace engineering, avionics systems and aviation management, graduates from this programme are eminently qualified to work in aerospace maintenance, repair and overhaul (MRO) and manufacturing companies, airport and airline companies, aerospace startups, as well as the Singapore Armed Forces. Rigorous academic training in analytical, computational and system design skills also enables the graduates to find their career path in non-aerospace industries such as robotics, automotive, ground transportation, mechatronics, and software companies.



This is a **direct honours** programme. To graduate with an honours degree, students will have to satisfy all university requirements and complete a **total of 170 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses and 150 cu of major courses. Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the cumulative grade point average (CGPA) assessed throughout the degree programme. Curriculum Highlights

Aerospace Management

- Introduction to Engineering Materials and Aeromaterials
- Thermo-Fluid Mechanics
- Analogue Electronics Design
- Digital Electronics Design
- Structured Programming
- Object Oriented Programming
   Calculus I
- Aerospace Propulsion
  A Primer on Aerospace and
- Aviation@Cranfield

Just like an aircraft taking off against the wind, the Bachelor of Engineering in Aerospace Systems programme challenges your aviation horizon in the aviation field. With a comprehensive course structure, you will be able to integrate concepts from Engineering Mechanics, Flight Dynamics, Propulsion, Avionics, and other electives to be better equipped with stronger decision-making skills."

Poon Marian Alumna Programme Offered in Collaboration with:



#### **BEng ELECTRONICS**



The BEng Electronics programme provides technical depth and breadth to prepare graduates for a rewarding career in the electronics industry. It is structured to develop and train students with an in-depth knowledge of electronics, telecommunications and IT.

Programme Overview

Students have a choice for specialisation in areas such as data science, VLSI design, analogue and digital control system design, telecommunication system design and multimedia systems. Those who complete selected elective courses will also receive a Certification in Data Science at the time of their graduation.

This programme is accredited by the Engineering Accreditation Board (EAB), The Institution of Engineers, Singapore (IES). Through this accreditation, the BEng Electronics degree is recognised in Singapore and other countries in the Washington Accord.

Students in this programme are eligible to register for student membership with The Institution of Engineers, Singapore (IES). For more information, please visit www.ies.org.sg.

Graduates from this programme should be able to work in industries such as electronics, telecommunication, semiconductor foundries, control plants and applied electronics sectors.



Career Prospects

 $\mathcal{R}$ Whom is this for?

This programme equips graduates with a balanced and comprehensive range of knowledge and skills in electronics, telecommunications and IT, and is suitable for working adults in the electronics and related industries.



Programme Structure

This is a **direct honours** programme. To graduate with an honours degree, students will have to satisfy all university requirements and complete a total of 170 credit units (cu) of courses, comprising 20 cu of SUSS Core courses and 150 cu of major courses. Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the cumulative grade point average (CGPA) assessed throughout the degree programme.

Analogue Electronics Design

- Digital Electronics Design
- Design of Logic Systems
- Intellectual Property and Patents
- Structured Programming
- Object Oriented Programming
- Calculus I
- Calculus II

Managing full-time work alongside part-time studies was challenging, but careful planning and prioritisation made it manageable. I dedicated evenings and weekends to my coursework and received invaluable support from my employer and professors. In the end, the effort was well worth it. Graduating from SUSS's Bachelor of Engineering in Electronics programme has profoundly impacted my career. The programme equipped me with a broad skillset relevant to real-world applications. Among the many courses, Analog Electronics, Computer Communications, Programming and Wireless Communication Systems have been particularly useful in my work. The Project Management course and the Capstone Project provided practical experience that helped me to solve complex problems, manage time effectively, write professional test reports and SOPs, and enabled me to work independently and collaboratively."

Aye Myint Myint San @HEMA Alumna

Curriculum

**Highlights** 

#### **BSc BIOMEDICAL ENGINEERING**





Combining engineering concepts with the world of life sciences to address biomedical engineering issues, this programme provides students with the knowledge and skills to identify, define and solve problems in biology and medicine, and build your capability to develop better medical devices and instruments to enhance the standard of healthcare.

In the BSc Biomedical Engineering programme, students will be trained in core biomedical engineering and specialised biomedical engineering areas of rehabilitation engineering, bioinformatics, and medical electronics. This programme prepares students for employment in the medical device/electronics industry, hospitals, private health organisations, and positions involving direct contact with healthcare, rehabilitation, and human performance.

Students in this programme are eligible to register for student membership with The Institution of Engineers, Singapore (IES). For more information, please visit www.ies.org.sg.

You may pursue Biomedical Engineering as a single major or in combination with a Minor in Paramedicine and Emergency Response, and many others.

Graduates from this programme are suitable for employment in the medical device/electronics industry, hospitals, private research organisations, and positions involving direct contact with healthcare, rehabilitation, and human performance.



Career Prospects



This programme is suitable for practicing professionals in the biomedical and healthcare sectors who wish to upgrade their academic qualifications from GCE 'A' Level or diploma to a degree.



This is a **direct honours** programme. To graduate with an honours degree, students will have to satisfy all university requirements and complete a **total of 170 credit units (cu) of courses**, comprising 30 cu of SUSS Core courses, 100 cu of major courses, and 40 cu of a Minor and/ or Free Electives (course pre-requisites apply). Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the cumulative grade point average (CGPA) assessed throughout the degree programme.



Biomedical Informatics
Biomedical Instrumentatio and Systems
Rehabilitative and Assistive Engineering
Biomedical Devices Innovation

Biomedical Informatics
 Application of AI in Healthcare
 Biomedical Instrumentation
 Cardiovascular Bioengineering

- Crisis Communication
- Terrorism, CBRNE Incidents and Major Health Crises
- Leadership in Paramedicine

BSc BIOMEDICAL ENGINEERING WITH MINOR IN PARAMEDICINE AND EMERGENCY RESPONSE

This programme incorporates the application of engineering techniques in biological sciences and medicine, together with specialised paramedicine and emergency management courses from the Justice Institute of British Columbia (JIBC), Canada's leading public safety educator providing tertiary education in areas of justice and public safety. Students in this programme will also have the opportunity to spend time at JIBC's main campus and use the Institute's simulation and PRAXIS technology. With the Minor in paramedicine and emergency response, graduates are armed with additional emergency-health-related knowledge and policy development skills. We expect our graduates from this degree programme to think, act and speak with confidence in any chosen emergency-management-related career.

Programme Offered in Collaboration with:





This programme has been instrumental in my professional development, equipping me with the knowledge, skills, and confidence to succeed in the biomedical engineering field."

Alviento Trishalyn Nicole Belleza Alumna

#### **BSc DIGITAL MEDIA**





Programme Structure

To graduate with a basic degree, students are to complete a **total of 130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of a Minor or Free Electives (course pre-requisites apply).

This programme has an honours option. To graduate with an **honours degree**, students will have to satisfy all university requirements and complete an additional 40 cu of courses to achieve **170 cu in total**. Students who achieve a cumulative grade point average (CGPA) of 3.5 and above upon completion of their basic degree may be invited to enrol in the honours programme, which will be offered only if the requisite number of students is met. Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the CGPA assessed throughout the degree programme.



#### Structured Programming

Digital Photography Technology
Creative Design Fundamentals
History of Media

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- Fundamentals of Mathematics
- Fundamentals of Graphics Design
- Audio Technology
- Video Technology

The BSc Digital Media programme has allowed me to explore and master the creative, digital, and technical aspects of the field, significantly enhancing my hard skills for real-world applications."

How Hee Lin Alumna

Career Prospects

networks, as well as media communication.

Graduates may work as digital media specialists, graphic artists, photographers, designers, audio and video producers, computer game designers, mobile phone app developers or even teach digital media topics in schools.

Programme

**Overview** 

This programme trains creative media technologists for the burgeoning

multimedia industry. Its multidisciplinary framework anchors students

through foundational mastery in key knowledge areas, and then equips

them with the requisite specialist know-how and skills in strategic areas of <u>expertise</u>, including electronic media systems, computing/IT, multimedia

You may pursue Digital Media as a single major or in combination with a Minor.

Whom is this for?

This programme is suitable for those who are looking to earn a qualification to work in the digital media industry, as well as working professionals who wish to upgrade their knowledge and skills in digital media technology.



#### **BSc EVENTS MANAGEMENT**





#### Programme Overview

Events management is a challenging and ever-evolving field, made no less straightforward by recent global health concerns, and the universally increasing need for collaboration between partners, whether at the industry or national levels. While most have the impression that events centre around business-related matters, i.e., the MICE industry, there are also a great deal of events that deal with community outreach, publicity, or international efforts and the like. Furthermore, one must also consider that in events management, other work occurs in the background, often unnoticed from the front-end — skills such as marketing, communication, presentation proficiency, as well as logistics and financial planning all come into play.

The BSc Events Management programme is a partnership between the Singapore University of Social Sciences (SUSS), Singapore Polytechnic (SP), Esplanade – Theatres on the Bay, and Singapore Association of Convention & Exhibition Organisers & Suppliers (SACEOS). The programme aims to equip students with a diverse set of skills for effective management in the events industry. Students will be kept up to date with current industry practices, thanks to close involvement of our partners, and will also look into emerging trends for events, the use of technology, and other unique features that will distinguish their projects. This is in addition to the conventional management of events, which will also include an in-depth study of risk management, venue and space management, the running of logistics, as well as the importance of creativity, ideation and conceptualisation of an event. As such, the programme involves both the technical expertise required for the industry, but also recognises the creative component necessary to make any event groundbreaking.

Events managers play a dynamic role, constantly adapting to changes not only in the execution stages, but also in response to global demand, community and international conditions, as well as evolving expectations. As such, all students are strongly encouraged to take on an industry project as part of their electives in the programme, so as to better position themselves for a volatile, uncertain, chaotic, and ambiguous world in the near future.

The BSc Events Management is supported by Workforce Singapore's Career Conversion Programme for Tourism Professionals. If eligible, your employer may receive up to 90% salary support while you pursue the BSc Events Management. For more information on the programme, please visit WSG Career Conversion Programmes (CCP) for Employers in Singapore at https://www.wsg.gov.sg/home/employers-industry-partners/workforcedevelopment-job-redesign/career-conversion-programmes-employers.

You may pursue Events Management as a single major or in combination with a Minor.



Graduates with a degree in events management will be well equipped to pursue successful careers in the events management industry, as well as gain the versatile skill set to plan and conduct events in their respective roles.

Prospects

RR Whom is this for?

This programme is recommended for aspiring events managers, or those who are keen to pursue a career in the events management industry.



**Hiahliahts** 

- Business Events
- Security Management for the **Built Environment**
- Marketing Management
- Hospitality and Tourism Management
- Special and Mega Events
- Trends and Technologies for Event Management

apply).

 Event Ideation and Conceptualisation

The BSc Events Management may not have been my first choice, but it has proven to be the best. I can apply what I've learned to my work, and the courses have opened new opportunities for me. I've been able to influence positive changes in my work environment, improving the planning, management, and execution of events."

Yeo Wei Jian Student

Programme Offered in Collaboration with

Programme

Structure

To graduate with a basic

degree, students are to

complete a total of 130

courses, comprising 20 cu

of SUSS Core courses. 80 cu

of major courses, and 30 cu

of a Minor or Free Electives

credit units (cu) of

(course pre-requisites



SINGAPORE

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#### **BSc FACILITIES MANAGEMENT**





#### Programme Overview

The BSc Facilities Management programme is a partnership between the Singapore University of Social Sciences (SUSS), Singapore Polytechnic (SP), and the Building and Construction Authority (BCA) Academy.

In line with the Construction Industry Transformation Map and Real Estate Industry Transformation Map (ITMs), this programme aims to prepare future-ready graduates who demonstrate knowledge and skills that go beyond traditional facility management and are able to adapt to global trends and new technologies to ensure a well-managed and sustainable built environment.

This programme is taught by a faculty consisting of academics with relevant industry experience and senior industry practitioners. It is accredited by the International Facility Management Association (IFMA), the Accreditation Board for Engineering and Technology (ABET) and the Royal Institution of Chartered Surveyors (RICS), UK. Students can also graduate with professional certificates such as Green Mark Accredited Professional (GMAP).

You may pursue Facilities Management as a single major or in combination with a Minor.

Graduates with a degree in facilities management will be well equipped to pursue successful careers in asset, property & facilities management.



Career Prospects Whom is this for?

This programme is for aspiring facilities managers or asset and property managers, or those who are keen to pursue a career in the built environment sector.



Programme Structure

To graduate with a basic degree, students are to complete a **total of 130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of a Minor or Free Electives (course pre-requisites apply).



Curriculum Highlights

- Operation and Maintenance of Building Services
- Building Services
- Sustainable Buildings
- Energy Management and Audit
  Township Management
- Township Management
- FM Quality Management System
   Building Information Modeling for Facilities Management
- SMART and Emerging Technologies for Facilities Management

Programme Offered in Collaboration with:

BCA ACADEMY



#### **BSC HUMAN FACTORS IN SAFETY**





Human Factors (also known as ergonomics) is concerned with how people interact with technology, and how their physical and operational environments affect them. It is the study of the capabilities and limitations of people applied to the design of systems, products and work environments to ensure that people are safe and healthy at work and are also able to perform effectively and efficiently.

The BSc Human Factors in Safety programme covers key knowledge and skills in both the Human Factors discipline and Workplace Safety and Health (WSH). You will be equipped with knowledge on the variability of human characteristics (age, size, strength, sensory and cognitive ability, prior experience, expectations and goals, etc.) and the complexities of technologies and work processes, and organisational contexts. You will learn how to analyse and control Workplace Safety and Health (WSH) hazards, understand various safety and risk management systems, perform and report on WSH audit and investigate workplace accidents. You will also be armed with knowledge on how to evaluate and design or redesign equipment, workplaces, environments and systems to improve safety, health, performance and satisfaction using human factors principles and methodology.

The BSc Human Factors in Safety programme is accredited by the Institution of Occupational Safety and Health (IOSH), UK, and is recognised by the Singapore Ministry of Manpower (MOM) for WSH Officer registration.

iosh

You may pursue Human Factors in Safety as a single major or in combination with a Minor in Military Studies (for SAF Regulars only).



Prospects

Career

Modern technologies create new interactions between human, machine, and systems. Human Factors Specialists play a key role in examining the safe use and usability of these interactions. Good human factors considerations in designing and evaluation improves user's trust and acceptance of innovative technologies. Graduates can look forward to a fulfilling career as designers, research consultants, and workplace safety officers.

### Whom is this for?

This programme is ideal for designers, human factors consultants, and workplace safety officers who are keen to learn principles and approaches of human factors and ergonomics for designing and evaluating products, systems, and services to enhance usability and user experience.

If you are interested in understanding the science behind information processing and how human factors engineering can be applied to reduce human errors, this programme is perfect for you.

> Programme Structure

To graduate with a basic degree, students are to complete a **total of 130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of a Minor in Military Studies (for SAF Regulars only) or Free Electives (course pre-requisites apply).

- Psychology for Human Factors
- Human Factors and Systems Design
- User Centred Design for Interactive Systems

Curriculum Highlights

- Universal Design
  Workplace Evaluation and Design
- Human Factors Methods
- The BSc Human Factors in Safety programme has provided me with invaluable insights into safety processes, regulations, and design considerations. Through comprehensive learning, I

gained a deeper appreciation and understanding, which

greatly improves my approach to ensuring safety in



Lee Ker Yih Alumnus

various environments."

#### **BSc INFORMATION AND COMMUNICATION TECHNOLOGY**





This programme covers the study of technology that handles information and enables communication. A key feature of the programme is the incorporation of industry certification and practitioner-oriented courses. Students are provided with a strong theoretical foundation in the various technologies related to the handling, processing, and communication of information, with specialised modules dedicated to artificial intelligence and data analytics. Graduates will be industry-ready and well-prepared for a multitude of careers in the infocomm industry.

Students in this programme are automatically members of the Singapore Computer Society Student Chapter.

You may pursue Information and Communication Technology as a single major or in combination with a Minor.

#### Graduates will be well-prepared to pursue

Prospects

technical careers such as:

Career

- Data Analyst/Engineer
- AI/ML Engineer
- Software Developer
- Systems Analyst
- System/Network Administrator
- IT Project Manager

## Whom is this for?

This programme is suitable for those who have a keen interest in areas related to infocomm technology and wish to pursue a career in ICT.



Programme Structure

To graduate with a basic degree, students are to complete a **total of 130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of a Minor or Free Electives (course pre-requisites apply).

This programme has an honours option. To graduate with an **honours degree**, students will have to satisfy all university requirements and complete an additional 40 cu of courses to achieve **170 cu in total**. Students who achieve a cumulative grade point average (CGPA) of 3.5 and above upon completion of their basic degree may be invited to enrol in the honours programme, which will be offered only if the requisite number of students is met. Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the CGPA assessed throughout the degree programme.



Highlights

Structured Programming

- Object Oriented Programming
- Web Application Development
- Operating Systems
- Computer Networking
- Data Structure and Algorithms
- Data Programming
- Machine Learning
- NLP foundation for Generative AI
- Generative AI: Theory and Practice

#### **BSc INFORMATION TECHNOLOGY** AND BUSINESS (ERP)



Programme

**Overview** 

This unique programme incorporates technical IT and business-specific courses together with specialised Enterprise Resource Planning (ERP) courses from SAP, the worldwide leader of ERP software. The changing needs of today's challenging business environment provide a growing demand for graduates who are versatilists with sound business knowledge and strong IT technical skills to handle technology as well as manage functional processes.

The added specialisation in SAP's ERP software will ensure graduates are industry-ready and well-prepared for a multitude of careers in the infocomm industry and IT end-user organisations.

Students in this programme are automatically members of the Singapore Computer Society Student Chapter.



Career **Prospects** 

Graduates would be prepared to take up positions such as:

- Business Analyst
- ERP Solution Consultant
- Systems Integrator
- IT Project Manager



This programme is suitable for those who have an interest in both business and ICT specialising in enterprise resource planning.



Programme Structure

This is a **direct honours** programme. To graduate with an honours degree, students will have to satisfy all university requirements and complete a total of 170 credit units (cu) of courses, comprising 30 cu of SUSS Core courses, 110 cu of major courses, and 30 cu of Free Electives (course pre-requisites apply). Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the cumulative grade point average (CGPA) assessed throughout the degree programme.



**Highlights** 

- Financial and Managerial Accounting
- Business Analysis (10 cu)
- Management Information Systems
- Enterprise Systems and Integrated Business Process
- Data Programming
- Web Application Development
- Operating Systems

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#### **BSc MATHEMATICS**





Students will learn to appreciate and understand the language of mathematics as well as learning logical and critical thinking skills that can be applied to formulate and solve real-life problems. The BSc Mathematics programme is suitable for those who intend to teach mathematics, or to use mathematics in a professional way in fields such as IT, engineering, management science, finance, etc.

This programme prepares students with a firm foundation in mathematics with an emphasis on applied mathematics and statistics. Students will then have the opportunity to study topics in diverse areas such as analytics, cryptography, data science, financial mathematics and optimisation.

You may pursue Mathematics as a single major or in combination with a Minor.



Prospects

Career

A Singapore University of Social Sciences (SUSS) mathematics degree is the ideal first degree. It prepares you with strong quantitative/analytic and problem solving skills which are highly sought after in many diverse fields including finance, management, logistics, research, computing, IT and of course, teaching.

This programme is suitable for those who want to develop analytical reasoning, critical thinking and quantitative skills and apply these to diverse areas such as teaching, research, finance, management, logistics, computing.





To graduate with a basic degree, students are to complete a **total of 130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of a Minor or Free Electives (course pre-requisites apply).

This programme has an honours option. To graduate with an **honours degree**, students will have to satisfy all university requirements and complete an additional 40 cu of courses to achieve **170 cu in total**. Students who achieve a cumulative grade point average (CGPA) of 3.5 and above upon completion of their basic degree may be invited to enrol in the honours programme. Graduating students who meet the eligibility criteria for an honours classification will be awarded an honours degree based on aggregate academic performance measured by the CGPA assessed throughout the degree programme.



- Basic Statistical Methods in Experimental Design
- Advanced Statistical Methods in Experimental Design
- Basic Mathematical Optimisation
- Advanced Mathematical Optimisation
- Network Optimisation and Modelling
- Applied Financial Mathematics I
- Applied Financial Mathematics II
- Cryptography

The BSc Mathematics programme has been an enriching journey, offering a comprehensive exploration of mathematics, statistics, and computing. I've studied a wide range of topics, from foundational principles to advanced techniques, broadening my understanding and equipping me with practical skills for various industries. The emphasis on critical thinking and problem-solving has honed my analytical abilities, while exposure to computing has enhanced my technological proficiency. I am confident that this programme has well-prepared me for a rewarding career in any field that requires strong mathematical and analytical skills."

Desiree Ong Alumna

#### BSc WORKPLACE SAFETY AND HEALTH





The BSc Workplace Safety and Health programme aims to provide a more focused training in Workplace Safety and Health (WSH) for those aspiring to seek a career in safety. This WSH programme is unique in that students are grounded in human factors fundamentals and principles in the lower-level courses and then focus on the workplace safety, health and environmental issues in the higher-level courses. The programme equips students with the skills and knowledge of evaluating and controlling hazards, and developing strategic initiatives to create a safer and healthier workplace, through a better appreciation of human physical, biological and cognitive strengths and limitations.

The BSc Workplace Safety and Health programme is accredited by the Institution of Occupational Safety and Health (IOSH), UK, and is recognised by the Singapore Ministry of Manpower for WSH Officer registration.

You may pursue Workplace Safety and Health as a single major or in combination with a Minor.



Singapore has reached our goal to achieve workplace fatality rate to less than 1.0 per 100,000. Workplace Safety Officers play a vital role to maintain safe and injury-free workplaces for our people. Graduates can look forward to a fulfilling career as a safety professional in numerous sectors including manufacturing, construction, healthcare, built environment, and many more. Whom is this for?

This programme is suitable for those looking to join the WSH workforce to play a role in raising the work safety standards in Singapore, as well as WSH professionals wanting to further upgrade their knowledge and skills in Human Factors. In this programme, you will learn the science behind how people process information and how human factors engineering can be applied to bring down human errors.

To graduate with a basic degree, students are to complete a **total** of **130 credit units (cu) of courses**, comprising 20 cu of SUSS Core courses, 80 cu of major courses, and 30 cu of a Minor or Free Electives (course pre-requisites apply).



- Curriculum Highlights
- Workplace Evaluation and Design
- Safety, Risk and Resilience Engineering
- Environmental Hazards and Toxicology
- Fatigue Management
- Cognitive Systems Engineering
- Innovative Safety Coaching and Leadership

#### **Featured Events**

### Seah Choo Meng Public Lecture Series

The Seah Choo Meng Public Lecture Series was launched to honour Mr Seah Choo Meng's philanthropic contributions to SST, his invaluable guidance in establishing our Built Environment (BE) cluster, and, above all, his contributions to the BE industry.

The annual lecture series aims to feature eminent local, foreign thought leaders and distinguished practitioners who will impart their insights on current and emerging issues in the BE industry. Topics cover current and upcoming trends, issues and challenges on pivotal themes within the BE industry such as cost management, project management, facilities management, and sustainability.

The public lecture offers an excellent opportunity to ignite dialogue and exchange experiences and knowledge, while exploring how the industry can collectively progress towards a shared vision of tackling critical issues. The inaugural session held on 31 October 2023 was graced by Ms Indranee Rajah, Second Minister for Finance and National Development.

The event was a resounding success, attracting over 400 participants both in-person and online. The public lecture not only brought together professionals from the BE sector but also representatives from the various regulatory bodies, professional bodies and Institute of Higher Learning. Through this lecture series, our BE cluster programmes have garnered increased recognition from the industry. The second installation of the SCM Public Lecture Series was held on 20 June 2024.

#### **BSc Digital Media**

School of Science and Technology (SST) was delighted to participate in East Coast Digital Festival 2023 at Heartbeat@Bedok on Saturday, 10 June 2023. A total of 215 students from the Digital Media Programme had produced Tik Tok videos related to community building. The top 3 award winners of the SUSS East Coast Tik Tok Competition received prizes from Mr Heng Swee Keat (Deputy Prime Minister and Coordinating **Minister for Economic Policies**) at the Digital Festival. Our SUSS booth proudly showcased our students' Tik Tok works as well as those produced by East Coast residents.

As part of SUSS community giving mission, the SST team taught East Coast residents how to create Tik Tok videos. A total of 125 residents participated in our Tik Tok sharing session. Immense interest and enthusiasm among the volunteers and participants ignited the entire session. It was a truly meaningful and endearing experience for SST volunteers to teach Tik Tok making to the residents.

Muhammad Hanafi Bin Sedik (ICT student) believed that learning new digital tools could help elderly residents better connect with the younger generation and keep their minds active.

"I went there as a volunteer to teach and guide the residents on how to use Tik Tok. but I discovered so much more treasures in them. One elderly resident showed me the rhetorical and deep poems he wrote and posted on Facebook, and I was really touched by his writing. As I was teaching the elderly residents, they encouraged me along the way giving me lots of advice. I felt this is the beauty of intergenerational interaction. They have a lot to give us and the society than what we think we can give to them.", Wena Chan (Digital Media student).



### **JOIN US**

#### **ADMISSION CRITERIA**

1. Singapore Citizens, Singapore Permanent Residents or residents in Singapore

- 2. GCE 'A' Level with two passes (prior to 2006) or two H2 passes (from 2006), or • Local Polytechnic Diploma, or
  - International Baccalaureate (IB) Diploma, or
  - NUS High School Diploma, or equivalent<sup>1</sup>
- 3. Two years of full-time work experience, or currently employed on a full-time basis<sup>2</sup>
- 4. At least 21 years old

<sup>1</sup> Acceptable qualifications: Diploma from LASALLE College of the Arts; Nanyang Academy of Fine Arts (NAFA); National Institute of Education; and ITE Work-Study Diploma. Other Diploma qualifications (e.g., Advanced Diploma, Specialist Diploma, Conversion Diploma) plus an acceptable SAT or ACT (with Writing) score may be considered for admission on a case-by-case basis.

<sup>2</sup> Applicants who have fully completed National Service will be deemed to have fulfilled the work experience criterion.

Some programmes may have additional requirements. Please refer to the individual programme page on the SUSS website 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.

## **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.

### SCHOLARSHIPS AND FINANCIAL AID



SUSS offers scholarships to outstanding students pursuing their undergraduate studies with the University in recognition of their excellent academic achievements, leadership qualities, special talents and contributions.

There are also various types of financial aid available to students who need financial assistance during the course of their study.

Please visit **suss.edu.sg** for more details on the admission criteria, tuition fees and other information.

The SUSS School of Science and Technlogy offers the following Minors:

Application Development

**MINORS** 

- Cloud Computing
- Data Science
- Digital Media
- Events Management
- Facilities Management
- Human Factors
- Information Technology
- Mathematics
- Mobile Application Development
- Paramedicine and Emergency Response (recommended with
- BSc Biomedical Engineering major)
- Screen Production
- Workplace Safety and Health

An SUSS student reading any programme with a Minor option can choose to take any Minor offered by the University, subject to meeting specific requirements of his/her programme and the Minor.



Please visit **suss.edu.sg** for the full list of Minors available.

#### EVENTS AND ACTIVITIES



**CONVOCATION 2023** 

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**CONVOCATION LUNCH 2023** 



SUSS OPEN HOUSE 2024



#### **STUDENT ORIENTATION 2024**

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### EVENTS AND ACTIVITIES



INAUGURAL SEAH CHOO MENG PUBLIC LECTURE SERIES 2023 SST ALUMNI NIGHT 2023







**SST CAPSTONE PRESENTATION 2023** 

# CONTACT US

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#### Singapore University of Social Sciences

463 Clementi Road Singapore 599494

Admission and Programme Enquiries

TEL: 6248 9777 8.30am to 5.30pm (Mon to Fri)

Email: student\_recruitment@suss.edu.sg



Full-time Programmes



Part-time Programmes



Law Programmes

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   Singapore University of Social Sciences
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- 🕝 suss.sg 🖪 suss\_sg

Information is accurate as of July 2024.