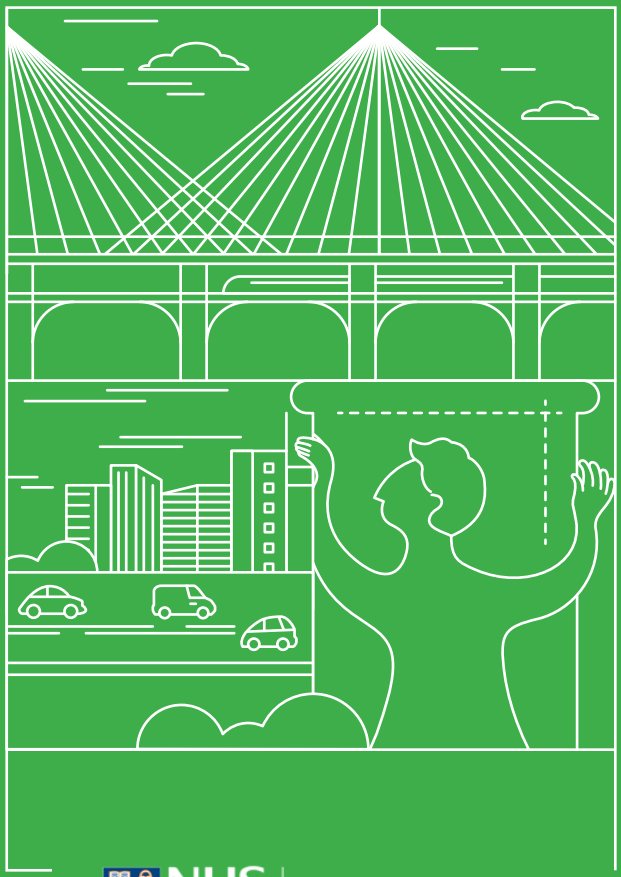


NUS National University of Singapore | College of Design and Engineering

INFRASTRUCTURE & PROJECT MANAGEMENT

BACHELOR'S DEGREE PROGRAMME

Infrastructure and Project Management

Lead | Build | Manage

Why Choose Infrastructure and Project Management?

Ranked 9th in the QS World University Ranking by Subject 2025 for Built Environment

Ranked 9th in the world for Built Environment education, the Bachelor of Engineering (Infrastructure and Project Management) degree programme at the Department of the Built Environment is a uniquely interdisciplinary degree. Rooted in Singapore's built environment sector, it blends engineering, management, finance, and law to tackle real-world challenges.

The Unique Engineering Degree that bridges Management, Finance, and Law

With the evolving nature (through new development projects, retrofitting, and conservation) of the built environment in Singapore and beyond, IPM graduates armed with engineering, management, finance, and law expertise lead teams with a strong acumen in project management.

T-shaped Skillsets for an Everchanging Climate

Infrastructure and Project Management (IPM) professionals communicate and collaborate effectively, uniting different professionals to deliver projects in all domains. IPM develops professionals with T-shaped skillsets (breadth and depth) which future-proof their careers regardless of job climate.

Own Your Tomorrow: Take charge of your future. Be future-proof, ever-ready.

Don't just manage projects—define them. IPM offers the skills you need.

What do IPM Undergraduates Study?

The IPM curriculum grounds undergraduates in core project management principles, with electives in cost and contract management, asset and facilities management, sustainable green buildings, and digitalisation in the built environment.

Cost and Contract Management

The IPM degree equips students with essential skills in contract management, cost control, and project planning, all of which are increasingly in demand in the built environment sector. Students gain both a strong foundation in critical areas of project cost and contract management, as well as the flexibility to explore specialised topics that align with their career interests.

Asset and Facilities Management

IPM undergraduates are trained to be next generation leaders and world class managers in sustainable asset and facilities management. The IPM degree prepares students for new opportunities which include artificial intelligence (AI) and digitalisation. They gain strategic skillsets to excel across geographies and market segments where rapid industry transformation has created job opportunities in managing building and property portfolios, digital infrastructure, and data assets.

Digitalisation in the Built Environment

The IPM degree trains undergraduates in the use of digital delivery tools such as Building Information Modelling (BIM), digital twins and AI for data-driven decisions for project, procurement and cost management. Modern buildings require data, AI, and algorithms for construction. The digitally attuned IPM professionals may find employment as smart project managers who lead diverse project teams to deliver smart infrastructure assets.

Career Pathways and Opportunities

CORE

- Project Manager (Built Environment or other sectors)

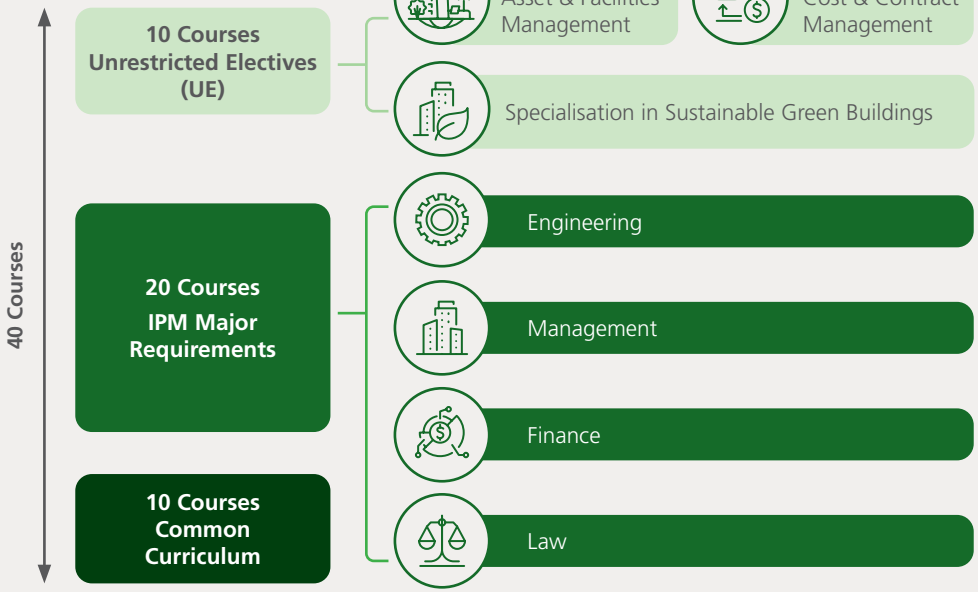
Built Environment Sector

- Quantity Surveyor (Cost & contract management)
- Energy Manager
- Sustainability/ ESG Consultant
- Infrastructure & Facilities Manager

ALTERNATE

- AI & Data Analytics
- Business & Project Finance
- Many others!
- Law
- Fund & Asset Management

Curriculum



Specialisation

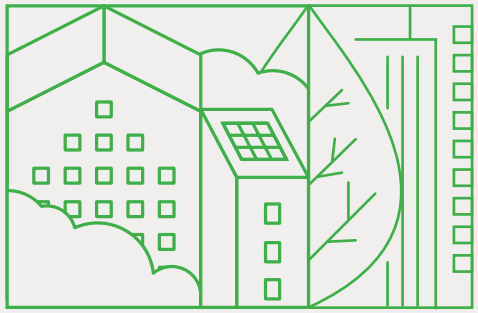
IPM Specialisation in Sustainable Green Buildings

With increasing attention by global and local organisations on sustainable green buildings, this specialisation in Sustainable Green Buildings aims to provide undergraduates with specialised knowledge and skills to be future leaders in the area of sustainability for the built environment.

The subjects provide students with the competencies and knowledge in topics such as passive and active strategies, solar photovoltaic deployment, renewable energy certificates, and scope 1–3 emissions. Students will have the opportunity to work in interdisciplinary teams to develop a green development, utilising knowledge spanning across project management, project finance, and engineering.

Customise YOUR IPM Degree

The IPM degree is both 'hard' and 'soft' depending on how the student customises the curriculum through specialisations, second majors, and minors. Beginning with the end in mind, an IPM student might be a future project manager, cost engineer, green asset manager, building scientist, or construction dispute analyst and beyond.



IPM students take a variety of Specialisations, Second Majors and Minors including:

Specialisation in Sustainable Green Buildings:

Second Major in:

- Economics
- Computing (Design and Engineering)
- Psychology
- Quantitative Finance
- Sustainable Urban Development

Minor in:

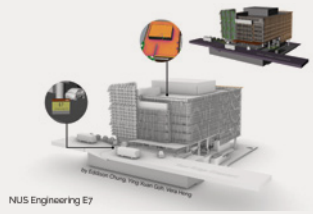
- Cities
- Communications and New Media
- Community Development and Leadership
- Data Analytics
- English Language and Linguistics
- Entrepreneurship
- Film Studies
- History
- Infrastructure and Finance
- Psychology
- Urban Studies

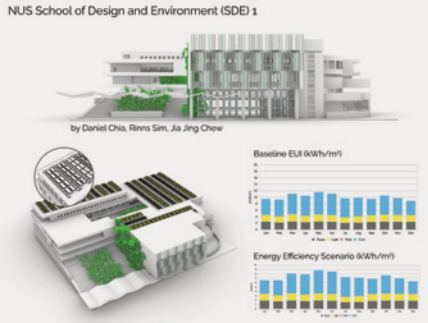
And many other majors and minors!

Student Projects

In your first year, you will take Digitalisation in the Built Environment as part of your core curriculum. In this course, you will head out onto the NUS campus, pick a building, and conduct real field surveys to create a detailed 3D model from scratch using industry-standard design tools.

Next, you will use professional environmental performance analysis software to test how your building performs. You will run simulations for daylight, solar exposure, and energy use, then determine its baseline Energy Use Intensity (EUI). Based on your findings, you will propose targeted energy-efficiency strategies to reduce its energy consumption and improve sustainability.





At the end of the course, you will publish your models and insights as part of a crowdsourced digital twin of the NUS campus, together with tutorials and guides that you create to help others learn from your work. Through this hands-on experience, you will gain essential skills for the digital age, from 3D modelling and computer-aided design to simulation-driven sustainable design.

These in-demand skills will prepare you for future roles such as sustainability consultant, digital design specialist, and other emerging careers in the built environment.

Profiles of Current Students

Eddison Chung Mun Kit

Bachelor of Engineering (Infrastructure and Project Management), Class of 2027

"Since matriculating in 2024 after completing my National Service, the Bachelor of Engineering (Infrastructure and Project Management) programme has provided me with practical and industry-focused skills that help me to get ready for the workforce. A memorable experience was completing a project for my IPM1103I Digitalisation in the Built Environment course under Dr Ang Yu Qian where my team developed and conducted thermal simulations and analyses on an NUS building using software such as Rhino and ClimateStudio. This project allowed me to improve my expertise in utilising digital tools to support data-driven decision-making, and instilled appreciation on the use of technologies that drive transformation within the built environment sector."

Fathima Zaina Naushard

Bachelor of Engineering (Infrastructure and Project Management), Class of 2027

"My IPM experience has been nothing short of invaluable. The interdisciplinary curriculum and guidance from passionate professors have deepened my love for the built environment. The skills I gained have helped me excel — not just in my internships, but also in the leadership roles I have taken up in and beyond NUS. Courses like Infrastructure and Project Management Law and Project Feasibility have sparked my passion for contract and project management, which I hope to pursue further. To future students: chart your own path! Everyone's journey is different, so embrace it and make your university experience truly your own."

Profiles of Alumni

Bec Jiyoon (Sarah)

Bachelor of Engineering (Infrastructure and Project Management), Class of 2025

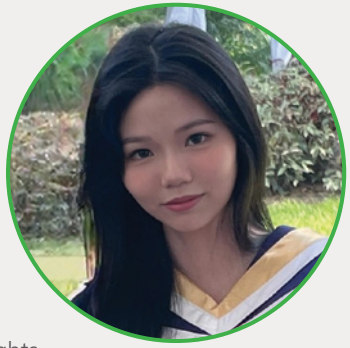
Paia FROM CBRE

Leasing Sustainability Consultant

"The IPM programme at NUS equipped me with a strong understanding of the building and infrastructure sectors while giving me the flexibility to explore my passion for sustainability from an engineering perspective. I appreciate how the curriculum integrates technical knowledge, project management, and real-world applications; it was truly a holistic education that only IPM could offer. My advice for future students is to stay open minded and take advantage of this breadth of learning, as IPM provides the space to discover your interests and shape your own path."

Jolene Kee Yin Siew

Bachelor of Engineering (Infrastructure and Project Management), Class of 2025



Quantity Surveyor, Smitech Engineering

"My experience in the programme has deepened my understanding of how engineering, management, finance, law, and sustainability intersect to shape the built environment. Through hands-on modules and my internship in facilities management, I gained valuable insights into preventive maintenance, project coordination, and stakeholder communication. The programme's interdisciplinary nature has strengthened my analytical and problem-solving skills, inspiring my aspiration to become a Quantity Surveyor. IPM cultivates both technical expertise and soft skills that are essential for today's built environment professionals. My advice to future students is to stay curious and proactive. Every project, no matter how small, is an opportunity to learn and grow."

Admission Requirements

Singapore-Cambridge GCE 'A' Level
A pass in H2 Mathematics or Further Mathematics.

Polytechnic Diploma
An accredited diploma.

International Baccalaureate (IB) Diploma
A pass in HL Mathematics: Analysis and Approaches.

NUS High School Diploma
A good major GPA in Mathematics.

International Qualifications
Applicants presenting international qualifications may apply with equivalent high school results.

Contact

cde.nus.edu.sg/dbe
+65 6516 3413
ipm@nus.edu.sg

All information contained is accurate at the time of publication in February 2026.
Do check our website for updates if any.