2021
SCHOOL OF ENGINEERING
#becausewecan
Think Innovation, Create Possibilities. At the School of Engineering, we live by this motto. With our extensive industry links and strong curriculum, we focus on building capabilities so that our students can realise their potential and achieve their aspirations.
why choose seg?

We believe in empowering you with passion to fuel ingenuity. We prepare you for the future by promoting innovation and creating opportunities for you to achieve your aspirations.

Look forward to…

BUILDING YOUR SKILLS
Pit your skills against the rest of the world in global competitions such as WorldSkills, Microsoft Imagine Cup and FIRA Hurocup, among others.

SEEING THE WORLD
Take advantage of NYP’s strong links with over 250 companies and organisations across 15 countries in Asia, Europe, North America, and Oceania.

SOLVING PROBLEMS
We have over 200 collaboration programmes and projects with companies and organisations.

UNCOVERING YOUR POTENTIAL
Discover what truly sets you apart through innovation-themed competitions, fun-filled learning and co-curricular activities.

Industry partners
Learn from the following renowned companies:

- Alcon Singapore
- GF Machining Solutions
- Hoya Medical
- Huawei
- Mindef
- MPDV Asia
- Rohde & Schwarz
- SembCorp
- SIA Engineering Company
- SingTel-NCS
- StarHub
- ST Engineering
Common Engineering Programme
The Common Engineering Programme is for you if you want to explore the breadth of engineering disciplines before choosing your field of specialisation.

The Common Engineering Programme enables you to enjoy the vibrant learning environment, and familiarise yourself with various engineering disciplines. Take a year to immerse yourself in the world of engineering, then choose from nine engineering diplomas to match your interests and aspirations.

This programme lets you...

Develop essential 21st century skills such as problem-solving, critical thinking, collaboration, communication and creativity through project-based learning.

Go on exciting field trips and inspiring learning journeys that will broaden your exposure to engineering while you explore your specific area of interest.

Look forward to getting the course of your choice after exploring all options.

At the end of Year 1, Semester 2, you will be able to make an informed decision regarding your preferred diploma. You may pursue one of the following diplomas:

Electronics-Aerospace-Computer Engineering Track:
- Diploma in Aerospace Systems & Management
- Diploma in Electronic & Computer Engineering
- Diploma in Engineering with Business
- Diploma in Infocomm & Media Engineering

Mechanical-Aerospace-Biomedical Engineering Track:
- Diploma in Advanced & Digital Manufacturing
- Diploma in Aeronautical & Aerospace Technology
- Diploma in Biomedical Engineering
- Diploma in Engineering with Business
- Diploma in Nanotechnology & Materials Science
- Diploma in Robotics & Mechatronics
Diploma in Advanced & Digital Manufacturing
The Diploma in Advanced & Digital Manufacturing is for you if you want to acquire precision engineering and digital manufacturing skills.

Manufacturing is changing rapidly. Engineers are creating some of the most complex and intricate structures known to man. Not only do they solve problems in our daily lives, they also transform our environment. Learn about additive, biomedical and advanced manufacturing to create medical devices and aircraft components. The training stands you in good stead to pursue R&D, data analyses and digitalisation careers, among others.

This diploma lets you...

Develop a combination of core skills in precision engineering and digital manufacturing.

Acquire and apply knowledge in programming, data analytics, automation and artificial intelligence through project-based learning.

Look forward to exciting career opportunities in additive, aerospace, biomedical and advanced precision manufacturing industries.

Career Paths

- Additive Manufacturing Engineer
- Aerospace Manufacturing Engineer
- Assistant Manufacturing Engineer
- Assistant Software Engineer
- Automation Test Engineer
- Biomedical Manufacturing Engineer
- Data Analyst
- IOT Assistant Engineer
- Manufacturing IT Engineer
- Mechanical Engineer
- Precision Engineering Machinist
- Product Engineer/Designer
- Quality Assurance Technician/Engineer
- Quality Control Inspector
- Aerospace Manufacturing Processes
- Aerospace Manufacturing Specialisation Project
- Aerospace Material and NDT Technology
- Advanced Metrology & Quality Management
- Data Science, Analytics & Artificial Intelligence
- General Studies
- Integrated Development Project 1
- Integrated Development Project 2
- Integrated Product Life Cycle Management
- Manufacturing Information System
- Manufacturing Technologies
- Probability & Statistics
- Product Innovation with Design Thinking
- Quality Assurance
- Smart Manufacturing Technology
- Additive Manufacturing Specialisation Project
- Additive Manufacturing Technology
- Design for Additive Manufacturing
- Advanced Precision Machining
- Automation & Robotics in Advanced Manufacturing
- Precision Manufacturing Specialisation Project
- Advanced Precision Manufacturing Specialisation
- Biomedical Device Design
- Biomedical Manufacturing Specialisation Project
- Biomedical Manufacturing Technology

Final-year students will have opportunities to undertake a full-time project and participate in a local or overseas internship programme for one full semester. We have strong partnerships with various precision engineering industries, such as aerospace component manufacturing, precision mould and tool, machinery manufacturing and system integration.
Diploma in Aeronautical & Aerospace Technology
The Diploma in Aeronautical & Aerospace Technology is for you if you want to soar to great heights in the aerospace industry and establish a career in aircraft maintenance.

Fascinated by how airplanes fly? Wonder how a jet engine works and what propels a plane to supersonic speed? Build a strong foundation in engineering fundamentals and gain knowledge of aircraft systems and their operating principles, including best practices in maintenance, repair and overhaul (MRO) in the aerospace manufacturing industry.

This diploma lets you...

Gain skills in MRO and aerospace manufacturing from the only aerospace diploma in Singapore to offer these electives. Benefit from practical, hands-on training and theoretical modules which will prepare you to progress to university. Look forward to a rewarding career in sectors such as aviation, MRO and precision aerospace manufacturing.

Career Paths

- Aircraft Maintenance Engineer
- Airline Fleet Engineer
- Component Repair and Overhaul Engineer
- Defect Analysis Engineer
- Engineering Service Engineer
- Maintenance Controller
- Manufacturing/Production Engineer
- Planning Executive
- Quality Engineer
- Repair Process Engineer
- Structure/Stress Engineer

YEAR 1

CORE MODULES
- Algebra
- Calculus
- Effective Communication Skills
- Electrical Principles
- Engineering Drawing & Modelling
- Engineering Exploration Project
- Fundamentals of Innovation & Enterprise
- Fundamentals of Mechanics
- General Studies
- Introduction to Engineering
- Materials Technology
- Programming
- Thermofluids
- Workplace Digital Skills

YEAR 2

CORE MODULES
- Aeronautical Science
- Aero-Structures
- Aero-Systems
- Aircraft Propulsion Systems
- Analogue & Digital Electronics
- Aviation Legislation & Human Factors
- Computer Aided Design & Manufacturing
- Differential Equations & Series
- General Studies
- General Studies
- Mechanical Design
- Mechanics - Dynamics
- Metrology & Quality Control
- Probability & Statistics
- Workshop Practices

YEAR 3

Elective programmes (select one)

AEROSPACE SYSTEMS & TESTING

CORE MODULES
- Aero Maintenance Practices & Projects
- Aerospace Material & NDT Technology
- Aircraft Component & Fixture Design
- General Studies
- General Studies
- Communication & Personal Branding
- ELECTIVE MODULES
- Computational Analysis & Simulation
- Reliability & Failure Analysis

AEROSPACE MANUFACTURING

CORE MODULES
- Advanced Metrology & Quality Management
- Aero Maintenance Practices & Projects
- Aerospace Material & NDT Technology
- Communication & Personal Branding
- General Studies
- ELECTIVE MODULES (Choose two)
- Advanced Machining Technology
- Aerospace Manufacturing Systems
- Shop Floor Monitoring & Control

Final-year students will also have the opportunity to undertake a full-time project and participate in a local or overseas internship programme for one full semester.
Diploma in Aerospace Systems & Management
The Diploma in Aerospace Systems & Management is for you if you are curious about aircraft and flight systems.

Be amazed by the advanced systems in a modern airplane — from cockpit avionics systems to in-flight entertainment systems. Besides learning about state-of-the-art aerospace systems, you will also study how world-class airports are run and gain valuable experience through internships at well-known aerospace companies. This will prepare you for many engineering and management roles in aviation, such as a licensed aircraft engineer.

This diploma lets you...

Build your expertise in aerospace avionics systems with aviation management knowledge.

Get an enhanced learning experience with our latest state-of-the-art aerospace training systems and facilities, including Airbus and Boeing flight simulators.

Go for attachments at leading aerospace and aviation companies such as ST Engineering Aerospace, Airbus, Thales and Changi Airport Group.

Career Paths

- Air Force Engineer
- Airline Executive
- Airport Duty Terminal Manager
- Avionics Development Engineer
- Avionics System Specialist
- Avionics Test Engineer
- Avionics Workshop Engineer
- Licensed Aircraft Engineer
- Planning Executive
- Unmanned Aerial Vehicle (UAV) Application Engineer
Diploma in Biomedical Engineering
The Diploma in Biomedical Engineering is for you if you are passionate about creating innovative biomedical devices.

This diploma lets you...

Apply your skills in areas such as designing medical devices and innovating smart healthcare solutions.

Build critical thinking and problem-solving skills through industrial-inspired projects at our Industry Collaboration Centres.

Look forward to a career in the biomedical and pharmaceutical industries.

Make a difference in the medical and healthcare industry as you learn to design and create healthcare devices with the latest technologies. You can specialise in biomedical devices, regulatory and quality checks or the manufacturing of these devices.

Career Paths

- Assistant Field Services Engineer
- Biomedical Engineering Assistant
- Biomedical Engineering Research Assistant
- GMP Production Supervisor
- Laboratory Technologist
- Medical Sales Representative
- Quality Assurance Assistant
- Quality Control Assistant

YEAR 1

CORE MODULES

- Algebra
- Calculus
- Effective Communication Skills
- Electrical Principles
- Fundamentals of Innovation & Enterprise
- Fundamentals of Mechanics
- General Studies
- Introduction to Engineering
- Engineering Drawing & Modelling
- Engineering Exploration Project
- Materials Technology
- Programming
- Thermofluids
- Workplace Digital Skills

YEAR 2

CORE MODULES

- Anatomy & Physiology
- Biomedical Engineering Design
- Biomedical Equipment Electronics
- Communication & Personal Branding
- Differential Equations & Series
- General Studies
- Good Manufacturing Practice
- Innovation and Entrepreneurship
- Inorganic & Physical Chemistry
- Internet of Medical Things
- Microcontroller Applications
- Probability & Statistics

ELECTIVE MODULES

(Choose one)

- Automatic Control
- Organic Chemistry

YEAR 3

Elective programmes (select one)

BIOMEDICAL DEVICE TECHNOLOGY

CORE MODULES

- Biomedical Device Technology
- Biomedical Product & Technopreneurship
- Biosignal Processing & Analysis
- Good Manufacturing Practice
- People Skills in Technical Service

ELECTIVE MODULES

(Choose two)

- Medical Device Regulatory Compliance
- Medical Device Validation
- Medical Imaging
- Healthcare Analytics

QUALITY SYSTEM & REGULATORY COMPLIANCE

CORE MODULES

- Biomedical Product & Technopreneurship
- General Studies
- Medical Device Regulatory Compliance
- People Skills in Technical Service
- Quality Management System

ELECTIVE MODULES

(Choose two)

- Medical Device Regulatory Compliance
- Medical Device Validation
- Quality Management System
- Robotic Systems & Peripherals

Final-year students will also have the opportunity to undertake a full-time project and participate in a local or overseas internship programme for one full semester.
Diploma in Electronic & Computer Engineering
The Diploma in Electronic & Computer Engineering is for you if you are interested in developing smart devices, intelligent systems and innovative solutions.

This diploma lets you...

- Get skilled in software computing, analytics, artificial intelligence, autonomous systems and Internet of Things.
- Specialise in computer engineering, smart connected systems, business operations or microelectronics. These will get you into job domains from technology management to R&D.
- Look forward to career opportunities in the industry. Or, further your studies at prestigious universities worldwide.

**Career Paths**

- Application Engineer
- Business Development Executive
- Data Engineer
- Process Engineer
- Product Design Engineer
- Project Engineer
- Research & Development Engineer
- Software Engineer
- System & Test Engineer
- Technical Sales Engineer
- Technical Solution Architect

Get into the driver’s seat as advanced technologies revolutionise our world, connecting people through powerful devices. Be part of this exciting and dynamic field where you can shape the way people live, work and play. This diploma gives you wide knowledge in the theory and practice of electronics and computing. You will get opportunities to thrive in high-growth industries and sectors such as electronics, infocomm, semiconductor, telecommunications and the Internet of Things.

**course curriculum**

**JAE CODE C89**

**YEAR 1**

**CORE MODULES**

- Algebra
- Calculus
- Digital Electronics
- Effective Communication Skills
- Electrical Principles
- Electronic Devices & Applications
- Engineering Exploration Project
- Fundamentals of Innovation & Enterprise
- Fundamentals of Mechanics
- General Studies
- Internet and Web Application
- Introduction to Engineering
- Programming
- Workplace Digital Skills

**YEAR 2**

**CORE MODULES**

- Application Programming
- Communication & Personal Branding
- Computing Networking
- Connected System Design Project
- Differential Equation & Series
- Electric Circuit Analysis
- Electronic Communication Systems
- Electronic System Design Project
- General Studies
- Microcontroller Applications
- Probability and Statistics

**YEAR 3**

**Elective programmes (select one)**

**SMART CONNECTED SYSTEMS**

- Communication & Workplace Success
- Embedded System Design & Technology
- General Studies
- IoT System Project
- Wireless Communications & Networks

**BUSINESS OPERATIONS**

- Communication & Workplace Success
- Data Visualisation in Business Applications
- General Studies
- Principles of Marketing & Sales
- Supply Chain Management

**MICROELECTRONICS**

- Communication & Workplace Success
- General Studies
- IC Design & Test Project
- Semiconductor Technology
- Wafer Fabrication Processes

**ELECTIVE MODULES**

(Choose two)

- Application Development & Cloud Services
- Automation Systems & Control
- Data Analytics
- Internet of Things & Applications
- Robotics Technology
- Smart Healthcare Applications
- Sustainable Building Management System

Final-year students will also have the opportunity to undertake a full-time project and participate in a local or overseas internship programme for one full semester.
Diploma in Engineering with Business
The Diploma in Engineering with Business is for you if you want a strong head start in the best of both worlds: engineering and business operations. Are you tech-savvy? Do you have good business acumen? This diploma marries engineering and business concepts through a wide range of subjects: engineering technology, business analytics and planning, project and operations management and more. You will also get experience working for leading technology-related companies via internships in Singapore and countries like China, Korea, Japan and Taiwan.

**This diploma lets you...**

**Be competent and confident in both engineering and business operations sectors.**

**Discover the complete product development process, from the ideation of solutions and drafting business plans, to constructing prototypes ready for market.**

**Further your studies in both engineering and business at prestigious local and overseas universities.**

**Career Paths**

- Business Analyst
- Business Planning & Development Executive
- Entrepreneur
- Project Development Officer
- Project Engineer
- Project Financing Executive

**Year 1**

**Core Modules**

- Algebra
- Calculus
- Effective Communication Skills
- Electrical Principles
- Engineering Drawing & Modelling
- Engineering Exploration Project
- Fundamentals of Innovation & Enterprise
- Fundamentals of Mechanics
- General Studies
- Introduction to Engineering
- Materials Technology
- Programming
- Thermofluids
- Workplace Digital Skills

**Year 2**

**Core Modules**

- Analogue & Digital Electronics
- Business Management
- Communication & Personal Branding
- Differential Equations & Series
- Digital Marketing Principles
- Engineering Economics
- Enterprise Resource Planning
- Financial & Management Accounting
- General Studies
- Integrated Project – Ideation
- Integrated Project – Realization
- Mechanical Design
- Mechanics – Dynamics
- Statistics and Data Analytics

**Elective Modules**

- Business Process Optimisation & Analytics
- Global Supply Chain Management
- Product Design & Evaluation
- Product Lifecycle Management

Final-year students will also have the opportunity to undertake a full-time project and participate in a local or overseas internship programme for one full semester.
Diploma in Infocomm & Media Engineering
The Diploma in Infocomm & Media Engineering is for you if you want to make the big leap into infocomm and media, and seize opportunities in the digital space.

Be part of Singapore’s smart nation drive. With new-generation web applications and digital infotainment, infocomm and media are quickly transforming the nation. Get to develop UX-centric apps, generate creative media designs and deploy critical apps on cloud infrastructures.

This diploma lets you...

Choose from four specialisations: software development, user experience design, cloud-based networking and media engineering.

Build your fundamental infocomm and media expertise as you customise your study programme from your fourth semester onwards.

Work closely with industry partners on real-world projects in your third year of study.

Career Paths

- Audio Visual Engineer
- Cloud Engineer
- Data Centre Engineer
- Front End Web Designer
- Media Technology & Operations Professional
- Mobile App Developer
- Network Security Administrator
- Server Administrator
- Software Test Engineer
- UI Designer
- UX Designer
- Web App Developer

Final-year students will also have the opportunity to undertake a full-time project and/or participate in a local or overseas internship programme for one full semester.

Be part of Singapore’s smart nation drive. With new-generation web applications and digital infotainment, infocomm and media are quickly transforming the nation. Get to develop UX-centric apps, generate creative media designs and deploy critical apps on cloud infrastructures.

Course Curriculum

Year 1

Core Modules
- Algebra
- Computer System Essentials
- Data Communications & Networking
- Database Fundamentals
- Digital Media & Design
- Effective Communication Skills
- Electrical & Electronics Fundamentals
- Fundamentals of Innovation & Enterprise
- General Studies
- Object-Oriented Programming
- Programming Methodologies & Practices
- UX/UI Design
- Web Development

Year 2

Core Modules
- Communication & Personal Branding
- Cybersecurity Essentials
- General Studies
- IOT System Development
- Open Source Web Solutions Development
- Server Administration
- Web Design & Development
- Workplace Digital Skills

Elective Programmes
(Select one)

Year 2 & 3

Elective Programmes

UX Design & Engineering

Core Modules
- Advanced UI/UX Design
- Animation for Digital Media
- Emerging Trends & Technologies
- Information Design & Visualisation
- Portfolio Design & Development
- UI/UX Design Project 1
- UI/UX Design Project 2

Elective Modules
(Choose two)

- 3D Modelling & Technologies
- Advanced UI/UX Design
- Business Process Automation
- Cloud Architecture & Services
- Creative Imaging
- Cybersecurity Operations & Administration
- Data Analysis & Visualisation
- Information Design & Visualisation
- IT Service Operations & Management
- Lighting Technologies & Systems
- Media Production & Streaming Systems
- Multimedia Production
- Network Services Implementation & Management
- Web Application Development Framework

Media Technology & Systems

Core Modules
- Acoustics & Audio Systems
- Emerging Trends & Technologies
- Media Solutioning Project 1
- Media Solutioning Project 2
- Media Systems & Programming
- System Design & Project Management
- Video & Projection Systems

Elective Modules
(Choose two)

- 3D Modelling & Technologies
- Advanced UI/UX Design
- Business Process Automation
- Cloud Architecture & Services
- Creative Imaging
- Cybersecurity Operations & Administration
- Data Analysis & Visualisation
- Information Design & Visualisation
- IT Service Operations & Management
- Lighting Technologies & Systems
- Media Production & Streaming Systems
- Multimedia Production
- Network Services Implementation & Management
- Web Application Development Framework

This diploma lets you...

Build your fundamental infocomm and media expertise as you customise your study programme from your fourth semester onwards.

Choose from four specialisations: software development, user experience design, cloud-based networking and media engineering.

Work closely with industry partners on real-world projects in your third year of study.

Career Paths

- Audio Visual Engineer
- Cloud Engineer
- Data Centre Engineer
- Front End Web Designer
- Media Technology & Operations Professional
- Mobile App Developer
- Network Security Administrator
- Server Administrator
- Software Test Engineer
- UI Designer
- UX Designer
- Web App Developer

Final-year students will also have the opportunity to undertake a full-time project and/or participate in a local or overseas internship programme for one full semester.
Diploma in Nanotechnology & Materials Science
The Diploma in Nanotechnology & Materials Science is for you if you are keen to develop innovative products using nanotechnology know-how and skills.

Nanotechnology, one of the most advanced technologies today, is creating solutions that are faster, smaller and stronger. Gain a strong foundation in producing advanced materials, such as polymers and ceramics, to create smart products for an ever-changing world. These will open doors to opportunities in high-growth sectors, such as healthcare, renewable energy, biotechnology and more.

This diploma lets you...
Discover your passion for science and engineering. Benefit from various industry scholarships available. Further your studies at prestigious universities in related fields.

Career Paths
- Laboratory Technologists
- Materials Process Engineers
- Materials Technologists
- Process or Equipment Engineers
- Quality Engineers
- R&D Engineers

YEAR 1
CORE MODULES
- Algebra
- Calculus
- Computer Aided Design
- Effective Communication Skills
- Electrical Principles
- Engineering Exploration Project
- Fundamentals of Innovation & Entrepreneurship
- Fundamentals of Mechanics
- General Studies
- Introduction to Engineering
- Materials Technology
- Programming
- Thermofluids

YEAR 2
CORE MODULES
- Communication & Personal Branding
- Differential Equations & Series
- Foundational Materials Science and Application
- General Studies
- Good Laboratory Practices
- Inorganic & Physical Chemistry
- Materials Analysis & Nanocharacterisation
- Mechanics of Materials
- Organic Chemistry
- Polymers & Composites
- Quality Assurance
- Thermodynamics

YEAR 3
CORE MODULES
- Advanced Crystalline Solids
- General Studies
- Materials Processing and Application
- Solid State Technology

ELECTIVE MODULES
(Choose two)
- Data Analytics for Materials
- Micro and Nanotechnology
- Nanomaterials Science
- Smart Materials
- Sustainable and Renewable Technology

Final-year students will also have the opportunity to undertake a full-time project and participate in a local or overseas internship programme for one full semester.
Diploma in Robotics & Mechatronics
The Diploma in Robotics & Mechatronics is for you if you are fascinated with robotics and want to deploy them in real-world situations.

Love robots? Enjoy assembling things? This diploma combines mechanical, electronics and computing engineering. Learn to build your own robots and gadgets as you pick up the basics of engineering and programming. Plus, you can specialise in areas such as automation and robotics, wafer fabrication, aerospace or biomedical engineering.

This diploma lets you...

Get solid grounding in mechatronics competencies. You will be sought after in industries that embrace technological innovations in robotics and autonomous systems.

Receive training from experienced lecturers. Maximise your learning and get opportunities to compete in international and national technological competitions.

Further your studies at higher educational institutions, locally or overseas.

Career Paths

- Application Engineer
- Automation Engineer
- Equipment Engineer
- Quality Assurance Engineer
- Research & Development Associate Engineer
- Technical Service Engineer
- Test Engineer

YEAR 1

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<td>• Workplace Digital Skills</td>
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YEAR 2

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<td>• Analogue &amp; Digital Electronics</td>
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<td>• Automatic Control</td>
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<td>• Device Interfacing &amp; Programming</td>
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<td>• Differential Equations &amp; Series</td>
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<td>• Electrical Machines</td>
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<td>• Mechanical Design</td>
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<td>• Micro-Controller Applications</td>
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<td>• Probability &amp; Statistics</td>
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<td>• Quality Assurance</td>
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<td>• Robotic Systems &amp; Peripherals</td>
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<td>• Semesters Projects</td>
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YEAR 3

Elective programmes (select one)

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<td>CORE MODULES</td>
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<td>• Aerospace Manufacturing System</td>
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<td>• Aerospace Material &amp; NDT Technology</td>
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<td>• Communication &amp; Personal Branding</td>
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<td>• General Studies</td>
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<td>• Semesters Project</td>
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<td>ELECTIVE MODULES (Choose two)</td>
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<tr>
<td>• Aircraft Propulsion System</td>
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<td>• Computer-Aided Manufacturing/Engineering</td>
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<td>• Reliability &amp; Failure Analysis</td>
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<td>• Systems &amp; Control</td>
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<th>AUTOMATION &amp; ROBOTICS TECHNOLOGY</th>
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<td>CORE MODULES</td>
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<tr>
<td>• Automation Systems Design</td>
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<td>• Communication Personal &amp; Branding</td>
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<td>• General Studies</td>
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<td>• Motion Control &amp; Drives</td>
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<td>• Semesters Project</td>
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<td>• Communication &amp; Networking</td>
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<td>• Intelligent Systems</td>
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<td>• Mechanisms Design &amp; Simulation</td>
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<th>BIOMEDICAL ENGINEERING</th>
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<td>CORE MODULES</td>
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<tr>
<td>• Anatomy &amp; Physiology</td>
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<td>• Biomedical Manufacturing Technology</td>
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<td>• Communication &amp; Personal Branding</td>
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<td>• Semester Project</td>
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<tr>
<td>• Biomaterials</td>
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<td>• Medical &amp; Assistive Devices</td>
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<td>• Systems &amp; Control</td>
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Final-year students will also have the opportunity to undertake a full-time project and participate in a local or overseas internship programme for one full semester.
It was an honour to represent my country in this competition. I’m humbled to know that my product can help children around the world.

Eugene Lee Jun

EUGENE LEE JUN
DIPLOMA IN ELECTRONICS, COMPUTER & COMMUNICATIONS ENGINEERING
(NOW KNOWN AS DIPLOMA IN ELECTRONIC & COMPUTER ENGINEERING)

Eugene was given the opportunity to work on a learning aid for dyslexic children. He was part of a three-member team that created an interactive, smart learning cube for children with dyslexia. The project was very personal to him.

“My close friend and classmate in secondary school had dyslexia. I didn’t understand his struggles back then, and now, I wish I could have helped him,” he shares.

The app that Eugene designed produces customised lesson plans based on the user’s capabilities by tracking his or her strengths and weaknesses.

The team’s hard work paid off — they were champions in the Singapore leg of the Microsoft Imagine Cup 2018. After emerging victorious in the regionals, they went on to represent Singapore in the world finals held in Seattle, USA.

“The competition was one of my most memorable experiences. I’m grateful that I had the chance to create something that can really make a difference to society,” he says.
Take the opportunity to fuel your passion

BENEDICT HENG JIA LE
DIPLOMA IN AEROSPACE SYSTEMS & MANAGEMENT

Being a commercial airline pilot was Benedict’s childhood dream. “I’ve always wanted to learn about the job, and this diploma provided me a strong foundation in the basics of aerospace systems. I now have a better understanding of the science behind flying an aircraft,” says Benedict.

During his last semester at NYP, Benedict was given the opportunity to take an internship with Qatar Airways, where he worked as a flight operations assistant. It was a once-in-a-lifetime experience that taught him skills like how to handle sick passengers, communicate with inflight catering staff and inspect an aircraft cabin to ensure it is ready for boarding.

Benedict also met passengers from different countries, as well as pilots and cabin crew. He listened to all their stories, which inspired him to do his job well and work towards his dream of joining the aviation sector.

He shares, “I’m grateful that NYP gave me this opportunity to learn from one of the world’s top airlines and take a step closer to realising my childhood passion.”

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Benedict Heng Jia Le

Be inspired to become a trailblazer

LIEW YI XUAN
DIPLOMA IN ENGINEERING WITH BUSINESS

When Yi Xuan and her teammate represented NYP in the biennial WorldSkills Singapore, she was the only woman competitor in the Mobile Robotics category. Yi Xuan wasn’t the least bit daunted. She held her own and, together with her teammate, emerged second in her category.

Yi Xuan is representative of how engineering has become inclusive and is recognising more diverse talents. She shares, “My motto is simple. I just wanted to prove that you can excel at anything if you put your heart and mind to it. It can work for anyone, not just me.”
Minimum Entry Requirements

Applicants for the diploma courses must have obtained the following minimum results taken at not more than two sittings of the Singapore-Cambridge GCE O-Level Examination. The minimum GCE O-Level entry requirements for the courses under the EAE, JAE and DAE are:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>English Language</td>
<td>1-7</td>
</tr>
<tr>
<td>Elementary or Additional Mathematics</td>
<td>1-6</td>
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<tr>
<td>Any one of the following subjects:</td>
<td></td>
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<tr>
<td>- Biology</td>
<td></td>
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<tr>
<td>- Biotechnology</td>
<td></td>
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<tr>
<td>- Chemistry</td>
<td></td>
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<tr>
<td>- Combined Science</td>
<td></td>
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<tr>
<td>- Computing/Computer Studies</td>
<td>1-6</td>
</tr>
<tr>
<td>- Design &amp; Technology</td>
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<tr>
<td>- Electronics/Fundamentals of Electronics</td>
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<tr>
<td>- Physics/Engineering Science</td>
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<tr>
<td>- Science (Chemistry/Biology)</td>
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<tr>
<td>- Science (Chemistry/Physics)</td>
<td>3</td>
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<tr>
<td>- Food &amp; Nutrition</td>
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<tr>
<td>- Design &amp; Technology</td>
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</tbody>
</table>

ELMAB3 θ raw aggregate score (excluding CCA bonus points) ≤ 12

Admission procedures for diploma courses

Depending on your qualifications, you may apply through one of the following Admission Exercises:

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Method of application</th>
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</thead>
<tbody>
<tr>
<td>GCE O-Levels</td>
<td>Early Admissions Exercise (EAE) Application opens in June.</td>
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<tr>
<td></td>
<td>Joint Admissions Exercise (JAE) Application commences on</td>
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<td>the day of release of the GCE O-Level results.</td>
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<tr>
<td>GCE N-Levels</td>
<td>Polytechnic Foundation Programme (PFP) Application</td>
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<tr>
<td></td>
<td>commences on the day of release of the GCE O-Level results.</td>
</tr>
<tr>
<td>ITE Certificates</td>
<td>Joint Polytechnic Admissions Exercise (JPAE) Application</td>
</tr>
<tr>
<td></td>
<td>opens in February.</td>
</tr>
<tr>
<td></td>
<td>Early Admissions Exercise (ITE) [EAE(I)] Application</td>
</tr>
<tr>
<td></td>
<td>opens in June.</td>
</tr>
<tr>
<td>GCE O-Levels (those who did not participate in JAE)/</td>
<td>Please refer to our website for more details on</td>
</tr>
<tr>
<td>IPY4/IGCSE</td>
<td>Direct Admissions Exercise (DAE) Application opens</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>GCE A-Levels/IB</td>
<td>Jan</td>
</tr>
<tr>
<td>ITE Certificates/Malaysian SPM/STPM</td>
<td>Feb</td>
</tr>
<tr>
<td>Other foreign qualifications</td>
<td>Mar</td>
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<tr>
<td></td>
<td>Nov</td>
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</tbody>
</table>

ELR2B2

Courses                                                                 JAE Course Code | 2020 JAE Range of Net ELR2B2
-----------------------------------------------------------------------|------------------|------------------------
Advanced & Digital Manufacturing                                       C62              | 11-26
Aeronautical & Aerospace Technology                                    C51              | 6-14
Aerospace Systems & Management                                         C52              | 9-15
Biomedical Engineering                                                 C71              | 10-14
Common Engineering Programme                                           C42              | 10-26
Electronic & Computer Engineering                                     C89              | 8-22
Engineering with Business                                              C41              | 9-16
Infocomm & Media Engineering                                           C75              | 7-24
Nanotechnology & Materials Science                                     C50              | 7-16
Robotics & Mechatronics                                                C87              | 5-23

* On the day of the release of the GCE O-Level examination results, Sec 4NA students who obtained an ELMAB3 (English, Maths, Best 3 Subjects) raw aggregate score of 12 points or better (excluding CCA bonus points) will be eligible to apply to NYPFP provided that they have also obtained the minimum required grades listed in the table above.