

School of **Mechanical & Aeronautical Engineering**

Course Calendar

August 2024 to March 2025

Learn in a world of innovation and expertise.
Discover courses that propel your career.



Welcome to Singapore Polytechnic

School of **Mechanical & Aeronautical Engineering**

At Singapore Polytechnic, our legacy is built on a firm commitment to excellence that dates back to 1954. As pioneers in education and innovation, we have fuelled Singapore's growth into a global powerhouse. Our School of Mechanical & Aeronautical Engineering has nurtured talents who are ready to meet the challenges of the future.



Empowering Through Education

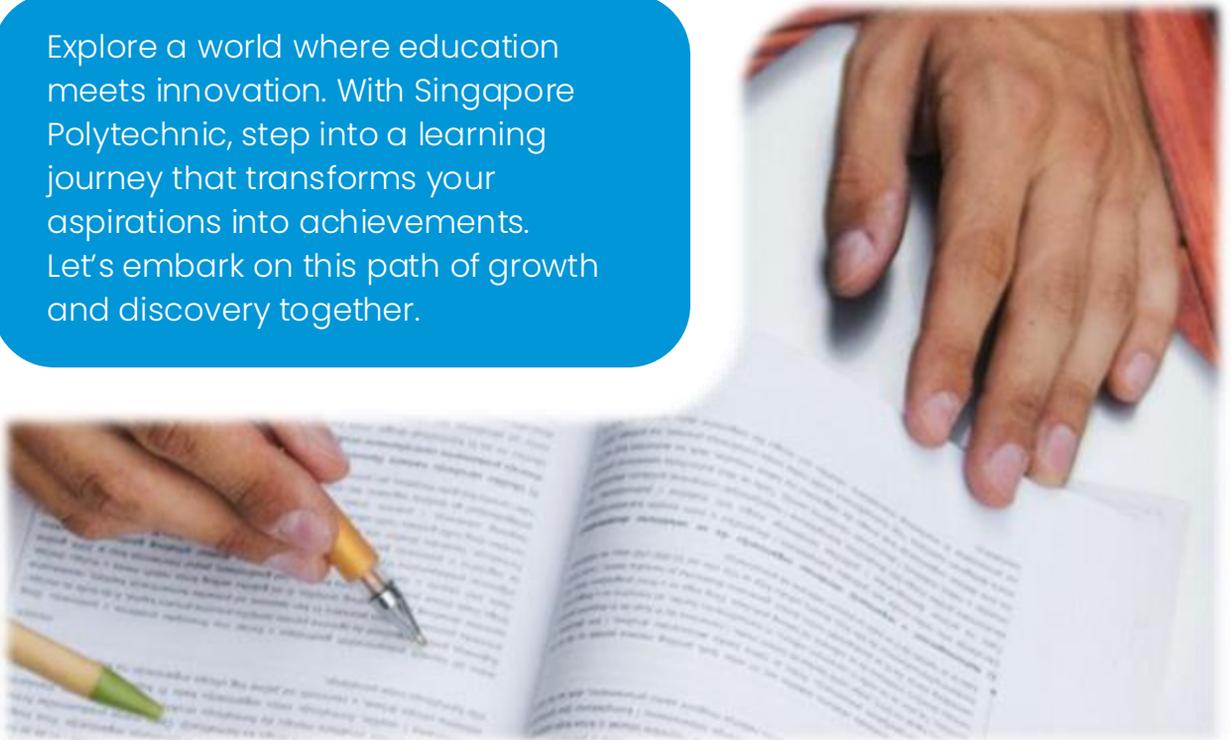
Our dedication goes beyond traditional learning; we are committed to the professional and personal development of every learner. Through our tailored courses and comprehensive training programmes, we equip our students with the skills necessary to excel in an ever-changing world.



Your Pathway to Professional Excellence

Through the Professional & Adult Continuing Education (PACE) Academy, we offer more than 400 courses ranging from Part-Time Diplomas to Post-Diplomas and specialised certificates. Each programme is crafted to bridge the gap between theory and practical application, ensuring that what you learn here not only enhances your skills but also amplifies your career prospects.

Explore a world where education meets innovation. With Singapore Polytechnic, step into a learning journey that transforms your aspirations into achievements. Let's embark on this path of growth and discovery together.



Why Choose Singapore Polytechnic's PACE Academy?

Excellence in Professional Development

Tailored Learning Experiences

- ✓ Customised Courses: Over 400 targeted courses designed to meet the specific needs of the industry and individual career growth.
- ✓ Flexible Learning Pathways: From Part-Time Diplomas to Post-Diplomas, and Work-Study Programmes, find a learning pathway that fits your schedule and career aspirations.

Industry and Community Connection

- ✓ Strong Industry Links: Courses are developed in partnership with key industry bodies, ensuring they are relevant and up to date with current industry standards.
- ✓ Community Engagement: Proud recipient of the SG50 Certificate of Appreciation for contributing to Singapore's 50-year journey as a nation.

Empowerment Through Education

- ✓ Funding and Support: Extensive support through partnerships with SkillsFuture Singapore (SSG) and Workforce Singapore (WSG) to make education accessible and affordable.



Award-Winning Education: Celebrate learning with an academy recognised for its excellence. Gold Winner of the Best Learning and Development Provider, HRM Asia Readers Choice Awards from 2019 to 2021.



Innovation in Teaching: Acknowledged for eliminating manual processes and enhancing team excellence with awards such as the Innergy (SB) Awards 2017 and the International Exposition on Team Excellence 2016.

Our Esteemed Partners and State-of-the-Art Facilities

Explore the robust network of industry partners and our strategically located training facilities, designed to offer you unparalleled learning experiences close to industry hubs.



Explore Our Comprehensive Course Offerings

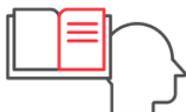
Look into a wide range of meticulously curated courses designed to meet your professional needs and enhance your career trajectory. Find the perfect match for your aspirations in our detailed course listings below.



Part-Time Diploma & Post-Diploma



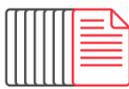
Work-Study Programmes



SkillsFuture Career Transition Programme



Mentorship Support Grant



Short Courses and Modules

[Contact us](#)



Part-Time Diploma & Post-Diploma Courses

Empower your

IMAGINATION

Embrace new

KNOWLEDGE

with _____



October 2024 Intake

Register by

1 September, 2024

April 2025 Intake

REGISTRATION OPENS ON

1 DECEMBER, 2024

Part-Time Diploma courses are designed for adult learners with working experience and academic qualification* such as GCE 'O' level, ITE qualification or WSQ Certificate, with the focus to equip them with the knowledge and skills to undertake and add value to jobs within a specific industry.

Programme	Duration	Registration	Course Date (s)
<p>Click the link to view the latest information and course schedules on our landing page</p> <p>Diploma in Engineering (Mechanical Technology)</p>	900 hours (2.5 years)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 30 Sep 2027
<p>Diploma in Engineering (Advanced Manufacturing)</p>	900 hours (2.5 years)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 30 Sep 2027
<p>Diploma in Engineering (Aerospace)</p>	918 hours (2.5 years)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 30 Sep 2027
<p>Diploma in Engineering (Mechanical- Rapid Transit Technology)</p>	900 hours (2.5 years)	01 Jun 2024 to 01 Sep 2024	14 Oct 2024 to 31 Mar 2026
<p>Specialist Diploma in Air-Conditioning & Energy Sustainability</p>	240 hours (1 year)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 31 Mar 2026

The entry requirements may differ from course to course. Please navigate to the respective course website to view the course entry requirements. Years in National Service can be counted toward working experience.

Please note that once the maximum class size is reached, the online registration will be closed. You may register your interest and be notified when there is a new run.

Part-Time Diploma & Post-Diploma Courses

Empower your

IMAGINATION

Embrace new

KNOWLEDGE

with _____



October 2024 Intake

Register by

1 September, 2024

April 2025 Intake

REGISTRATION OPENS ON

1 DECEMBER, 2024

Programme	Duration	Registration	Course Date (s)
Click the link to view the latest information and course schedules on our landing page			
Specialist Diploma In Robotics & Automation (Robotics Application)	240 hours (1 year)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 31 Mar 2026
Specialist Diploma in Aviation Management (Air Cargo)	285 hours (1 year)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 31 Mar 2026
SF Diploma in Logistics (Warehouse Management)	400 hours (1 year)	17 Jul 2024 to 13 Sep 2024	30 Sep 2024 to 05 Nov 2025
SF Diploma in Logistics (Freight Management)	400 hours (1 year)	01 Aug 2024 to 03 Nov 2024	03 Dec 2024 to 12 Feb 2026

The entry requirements may differ from course to course. Please navigate to the respective course website to view the course entry requirements. Years in National Service can be counted toward working experience.

Please note that once the maximum class size is reached, the online registration will be closed. You may register your interest and be notified when there is a new run.

Work-Study Programme



The SkillsFuture Work-Study Programme (WSP) is a work-learn programme that gives fresh graduates from the Polytechnics and the Institute of Technical Education (ITE) a head-start in careers related to their discipline of study. It provides them with more opportunities, after graduation, to build on the skills and knowledge they acquired in school, and better supports their transition into the workforce.

This programme places fresh graduates from Polytechnic and ITE who have completed the relevant full-time Diploma/NITEC/Higher NITEC in participating companies as full-time employees. The graduates would then undergo structured on-the-job training (OJT) at the companies as well as facilitated learning at Singapore Polytechnic. At the end of the programme, an Advanced Diploma/Specialist Diploma/Certificate of Completion will be awarded to the students.

Programme	Duration	Registration	Course Date (s)
Click the link to view the latest information and course schedules on our landing page			
<u>Work-Study Certificates leading to Part-Time Diploma in Engineering (Advanced Manufacturing)</u>	360 hours (12 months)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 31 Mar 2026
<u>Work-Study Certificates leading to Diploma in Engineering (Mechanical – Rapid Transit Technology)</u>	540 hours (18 months)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 30 Sep 2026
<u>SP-SUSS Work-Study Certificates leading to Part-Time Diploma in Engineering (Aerospace)</u>	510 hours (1 year)	01 Dec 2024 to 31 Jan 2025	21 Apr 2025 to 31 Mar 2026

Only applicants who are shortlisted by SP and participating companies will be notified to attend interviews. Successful applicants employed by the participating companies will be placed under the programme.

SkillsFuture Career Transition Programme



The SkillsFuture Career Transition Programme (SCTP) is a train-and-place programme that supports mid-career individuals in acquiring industry-relevant skills to improve employability and pivot to new sectors or job roles. The SCTP is open to all Singaporeans and Singapore Permanent Residents who are looking for training opportunities to transit to a new sector or job role.

Programme	Duration	Registration	Course Date (s)
<p>Click the link to view the latest information and course schedules on our landing page</p> <p><u>(SCTP) Aircraft Maintenance for Technician</u></p>	120 hours	<u>Please Enquire</u>	<u>Please Enquire</u>

SkillsFuture Series

Short Courses and Modules



Programme Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
Advanced Manufacturing		
<u>Additive Manufacturing For Professionals (Classroom and Asynchronous e-learning)</u>	56 hours	15 Apr 2025
<u>Advanced Manufacturing (i4.0) Learning Journey</u>	1 day	<u>Please Enquire</u>
<u>Application of Robotics</u>	7.5 hours	29 Nov 2024 09 Dec 2024 03 Jan 2025
<u>Applying Lean – Identifying and Quantifying Bottlenecks with Takt</u>	24 hours	<u>Please Enquire</u>
<u>Design Optimisation For Product Development</u>	26 hours	27 Nov 2024
<u>Embarking Industry 4.0 with LEAN - Value-Stream Mapping</u>	3 days	18 Oct 2024 08 Nov 2024
<u>Excel Visual Basic for Applications (VBA) For Industrial Automation</u>	16 hours	<u>Please Enquire</u>

SkillsFuture Series

Short Courses and Modules



Programme Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
Advanced Manufacturing		
i4.0 Learning Journey with SIRI	7 hours	Please Enquire
Machine Condition Monitoring Using Python Open Platform Communication (OPC)	24 hours	Please Enquire
Machine Learning Using Chat Generative Pre-trained Transformer (ChatGPT) For Manufacturing Industry	16 hours	Please Enquire
Machine Monitoring Dashboard With Node-Rules Engine and Dataflow (Node-RED)	24 hours	11 Dec 2024
Open Platform Communications Unified Architecture (OPC UA) for Advanced Manufacturing	16 hours	16 Dec 2024
Power BI for Smart Manufacturing	24 hours	15 Nov 2024

SkillsFuture Series

Short Courses and Modules



Programme Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
Modelling & Simulation		
<u>Advanced Revit MEP Modelling</u>	28 hours	09 Jan 2025
<u>AutoCAD 2D - Intermediate</u>	21 hours	06 Jan 2025
<u>AutoCAD Basics (2D & 3D)</u>	36 hours	14 Oct 2024 15 Oct 2024 16 Dec 2024 06 Jan 2025 07 Jan 2025
<u>Autodesk Navisworks for MEP BIM Project Collaboration</u>	30 hours	16 Oct 2024 03 Feb 2025
<u>Computational BIM for MEP Projects using Revit Dynamo</u>	30 hours	12 Dec 2024
<u>Discover Fusion 360 (Basics)</u>	24 hours	<u>Please Enquire</u>
<u>Essential Skills in Computational Fluid Dynamics (CFD): From Theory to Practical Applications</u>	34 hours	10 Dec 2024

SkillsFuture Series

Short Courses and Modules



Programme Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
Modelling & Simulation		
<u>Revit MEP Modelling</u>	40 hours	09 Dec 2024 10 Mar 2025
<u>SolidWorks – 3D Modelling and Drawing</u>	32 hours	14 Oct 2024 04 Nov 2024 to 29 Nov 2024
<u>SolidWorks: Sheet Metal and Weld Structures</u>	32 hours	14 Oct 2024 04 Nov 2024
<u>Structural Analysis using ANSYS FEA for Engineering Applications</u>	24 hours	04 Dec 2024
Aerospace		
<u>Air Freight Fundamentals</u>	15 hours	Please Enquire
<u>CAAS Approved Unmanned Aircraft Pilot Licence (UAPL) Flying Training & Assessment (Multi-rotor 7kg or less)</u>	32 hours	03 Dec 2024

SkillsFuture Series

Short Courses and Modules



Programme Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
Aerospace		
<u>Experiential Pilot Training with Flight Simulator</u>	8 hours	07 Oct 2024 02 Dec 2024
<u>Human Factors for Aviation Maintenance</u>	45 hours	07 Oct 2024 09 Dec 2024
<u>Introduction to Structural Simulations using Solidworks Simulations</u>	26 hours	10 Mar 2025
<u>Private Pilot License Ground School Training Course (Introduction)</u>	36 hours	14 Oct 2024 11 Nov 2024 09 Dec 2024
Sustainability		
<u>Driving Sustainability in Manufacturing Through ISO 5001 Energy Management Approach</u>	16 hours	<u>Please Enquire</u>

Certification Courses for Steam Boiler Engineer



Regulation 28(8) of the Workplace Safety and Health Act (WSH Act) (General Provisions) Regulations requires the owner of a Steam Boiler (SB) used in a workplace to ensure that only a competent person who has attended a training course acceptable to the Commissioner is allowed to operate the SB. Operators of SB are required to possess a Competent Persons' Certificate of Competency (COC) before they can operate the SB equipment.

Singapore Polytechnic conducts the SB Engineer courses for the 2nd Grade and 1st Grade SB Engineer, where there are Five (5) modules for each grade. Life-time Certificate of Competency (COC) will be issued for candidates who passed all modules examinations and meet the prescribes requirements by MOM.

Applicants are to write in to SP PACE with their educational documents to check for eligibility to take the course.

2nd Grade SB Engineer Courses Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
<u>Computer Aided Drafting (CAD)</u>	60 hours	Applicants are advised to write in to SP PACE to check for course run available for: Apr 2025 to Sep 2025 &/or Oct 2025 to Mar 2026
<u>Mechanics II</u>	60 hours	
<u>Thermofluids II</u>	60 hours	
<u>Engineering Knowledge II</u>	45 hours	
<u>Engineering Material I</u>	45 hours	

Certification Courses for Steam Boiler Engineer



1st Grade SB Engineer Courses Click the link to view the latest information and course schedules on our landing page	Duration	Course Date (s)
<u>Computer Aided Drafting & Design (CADD)</u>	60 hours	Applicants are advised to write in to SP PACE to check for course run available for: Apr 2025 to Sep 2025 &/or Oct 2025 to Mar 2026
<u>Mechanics III</u>	60 hours	
<u>Engineering Thermodynamics</u>	60 hours	
<u>Engineering Knowledge II</u>	60 hours	
<u>Engineering Material 2</u>	45 hours	

Mentorship Support Grant (MSG)

The Mentorship Support Grant (MSG) provided by SkillsFuture Singapore (SSG) intends to co-fund the costs incurred by enterprises in engaging Singapore Polytechnic to provide project mentorship through consultancy and/or project-based implementation-led training.

Eligible enterprises include Small and Medium Enterprises (SME) and Non-SMEs registered and operating in Singapore



Funding Subsidies: Enterprises can receive up to 70% and 90% funding subsidies on the project fee for non-SME and SME respectively, subject to SSG's evaluation and approval



Number of Projects: Enterprises can apply for MSG for a maximum of 3 projects

Additional Information can be found [here](#).



Your Journey Towards Lifelong Success Begins Here

At Singapore Polytechnic, we are dedicated to empowering you with the skills needed to excel in a rapidly evolving world. As your trusted partner in education, we commit to supporting your journey with innovative and impactful learning experiences that cater to both current trends and future demands.

Join Our Community of Learners

Whether you are starting a new career path, enhancing your current skills, or seeking to influence the industry, Singapore Polytechnic is here to support every step of your lifelong learning journey.



Visit us:

www.sp.edu.sg/pace



Talk to Us:

6772 1288



Email us:

pace@sp.edu.sg