

COURSE HANDBOOK 2019



CONTINUING
EDUCATION
& TRAINING

 **Temasek**
POLYTECHNIC

ABOUT US

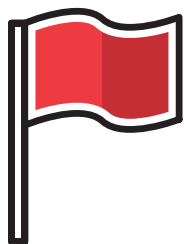
Beyond our core business of conducting full-time courses for students, Temasek Polytechnic (TP) is also committed to the practical re-skilling and professional development of adult learners. We believe in helping individuals and organisations equip themselves with the necessary skills to meet the challenges of dynamic economy.

The Temasek SkillsFuture Academy (TSA) at Temasek Polytechnic is committed to SkillsFuture initiatives and the professional development of adult learners. It offers different types of programmes to facilitate adult learners acquiring valuable knowledge and develop relevant skills to meet the challenges of the future economy. These include Diploma and Post-Diploma courses, SkillsFuture Earn and Learn Programmes, Skills-Based Modular Courses, public-run short courses, Workforce Skills Qualifications (WSQ) and customised training programmes for organisations.

TABLE OF CONTENTS

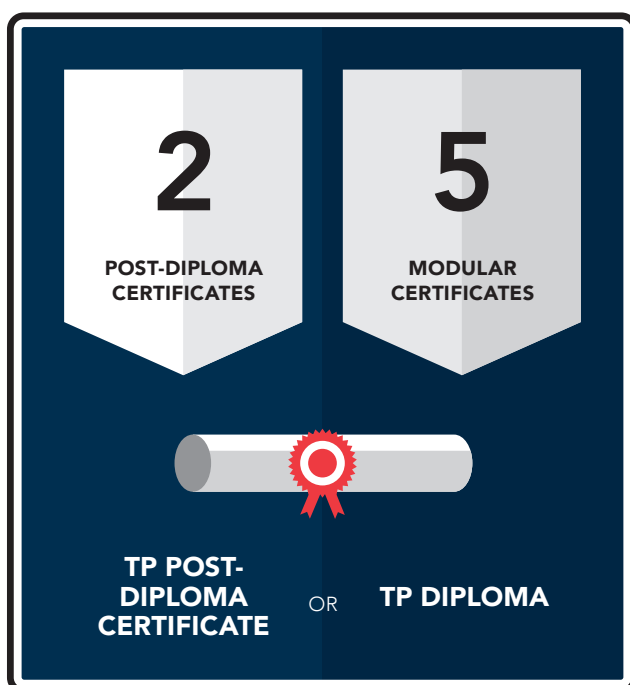
Part-time Courses and Skills-Based Modular Courses (SBMCs)	4	Specialist Diploma in Cloud Data Centre Technology & Management	29
Industry Transformation Maps (ITMs)	5	Specialist Diploma in Energy Management & Sustainable Design	30
DIPLOMAS		Specialist Diploma in Environment and Water Technology	31
Diploma in Applied Science (Aquaculture)	7	Specialist Diploma in Financial Advisory Services	32
Diploma in Applied Science (Chemical Technology)	8	Specialist Diploma in Financial Analytics	33
Diploma in Business Practice (Business Administration)	9	Specialist Diploma in Fintech	34
Diploma in Engineering (Aerospace)	10	Specialist Diploma in Hotel Operations & Management	35
Diploma in Engineering (Aviation Management)	12	Specialist Diploma in IC Assembly & Test	36
Diploma in Engineering (Operations & Systems Management)	14	Specialist Diploma in Industrial Internet of Things	37
Diploma in Infocomm and Digital Media (ICT Systems, Services & Support)	16	Specialist Diploma in Information Security & Forensics	38
Diploma in Legal Executive Studies	17	Specialist Diploma in Integrated Digital Communication	39
Diploma in Police & Security Studies	18	Specialist Diploma in Internet of Things	40
Diploma in Security & Fire Safety Studies	19	Specialist Diploma in Laboratory Management & Instrumentation	41
SPECIALIST DIPLOMAS		Specialist Diploma in MICE & Events Management	42
Specialist Diploma in Accounting & Finance	23	Specialist Diploma in Robotics & Automation	43
Specialist Diploma in AI Solutions Development	24	Specialist Diploma in Semiconductor Technology	44
Specialist Diploma in Big Data Management	25	Specialist Diploma in Wafer Fabrication	45
Specialist Diploma in Biopharmaceutical Technology	26		
Specialist Diploma in Branding Design	27		
Specialist Diploma in Business Analytics	28		

PART-TIME COURSES AND SKILLS-BASED MODULAR COURSES (SBMCs)



Temasek Polytechnic's part-time post-diploma and diploma programmes are developed in consultation with industry partners and government agencies to ensure greater curriculum-relevancy to the training needs of adult learners. Each programme is developed in support of Industry Transformation Maps and aimed at providing learners with knowledge and skills in core industry domain areas.

Our post-diploma and diploma programmes are made up of two Post-Diploma Certificates (PDCs) and five Modular Certificates (MCs) respectively. A learner will be awarded a TP Post-Diploma Certificate / Diploma upon completion of all PDCs and MCs.



SKILLS-BASED MODULAR COURSES

Learners can also choose to upgrade through our Skills-Based Modular Courses (SBMCs) under each PDC and MC. These modular courses enable individuals to acquire new skills or deepen specific skills as their careers progress, without the need to pursue a full qualification.

POST-DIPLOMA
CERTIFICATE

MODULAR
CERTIFICATE

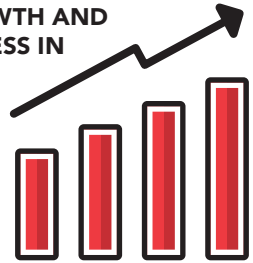
Upon successful completion of the modular course, a learner will be awarded a Statement of Results which can count towards the attainment of the corresponding diploma or post-diploma courses should the individual subsequently decide to enroll into relevant full-qualification courses.

INDUSTRY TRANSFORMATION MAPS (ITMs)

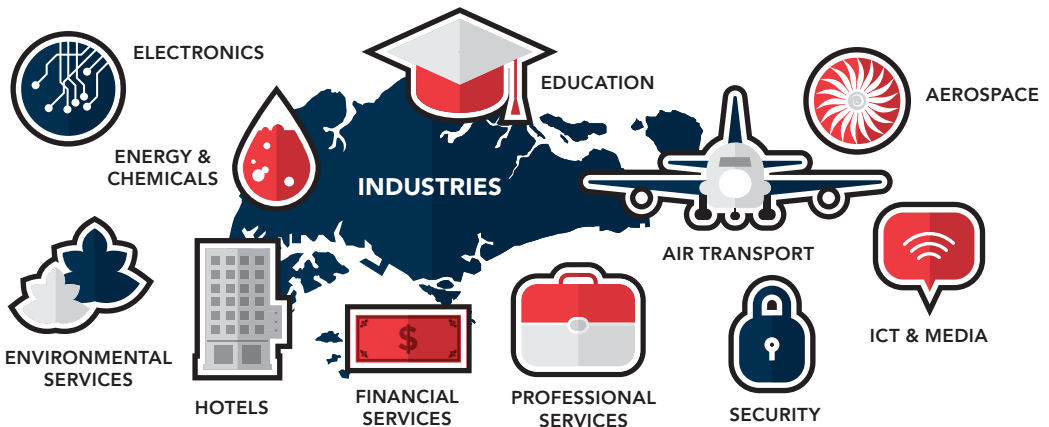
WHAT ARE ITMs?

ITMs are roadmaps and strategies to promote growth and competitiveness for various industries in Singapore. Each ITM integrates four key areas (**productivity improvement, jobs & skills development, innovation and internationalisation**) to benefit both employers and employees.

PROMOTE GROWTH AND COMPETITIVENESS IN INDUSTRIES



CURRENTLY, TEMASEK POLYTECHNIC'S CET COURSES FALL UNDER THESE INDUSTRIES:



KEY AREAS

PRODUCTIVITY

- Shift towards higher-value added activities
- Drive operational excellence
- Establish shared industry platforms for mass adoption

JOB & SKILL

- Promote manpower-lean enterprise development
- Equip Singaporeans with skills to support the shift to greater value creation
- Develop comprehensive ecosystem for skills development and lifelong learning
- Strengthen enterprise HR capabilities to maximise workforce potential

INNOVATION

- Leverage technology to drive innovation and value-creation
- Build enterprise capabilities and sector infrastructure
- Develop own products and brands

INTERNATIONALISATION

- Develop core of globally-competitive local enterprises
- Access global markets through digital channels
- Leverage international networks for market access

DESIRED OUTCOMES

EMPLOYERS

- Strategies that provide integrated assistance across domains
- Stronger support for innovation and internationalisation
- Single government agency to integrate transformation efforts

EMPLOYEES

- New and re-designed jobs with better wages
- More opportunities overseas
- Stronger support for upgrading and skills deepening

Visit www.mti.gov.sg/MTIInsights/Pages/ITM.aspx for details.

DIPLOMAS

A-Z

DIPLOMA IN APPLIED SCIENCE (AQUACULTURE)



COURSE CODE: PAH

APPLICABLE INDUSTRY: ENERGY & CHEMICALS

THE COURSE

This course provides participants with the knowledge and practical skills in aquaculture. It aims to promote continuing education and training among working adults in the ornamental fish and foodfish industries and other related industries so that they can upgrade their skills and knowledge to meet the industries' demands.

COURSE STRUCTURE

Modular Certificate in Aquaculture Fundamentals

Aquaculture & Aquatic Eco-System
Fish Anatomy & Biology
Fish Care & Husbandry

Modular Certificate in Aquatic Nutrition & Feeding

Nutrition & Nutrient Requirements
Feed Formulation & Preparation
Feeding Management in Aquaculture

Modular Certificate in Fish Health, Diseases & Prevention

Fish Health Management
Fish Diseases & Diagnosis
Fish Disease Prevention & Control

Modular Certificate in Fish Breeding

Fish Reproduction
Broodstock Management & Breeding for Foodfish*
Broodstock Management & Breeding for Ornamental Fish*
Broodstock Development & Selection

** Students to select 1 of these subjects*

Modular Certificate in Aquatic Systems, Practices & Management

Water Quality Management
Culture Systems & Practices for Foodfish*
Farm Management & Regulations for Foodfish*
Culture Systems & Practices for Ornamental Fish^
Farm Management & Regulations for Ornamental Fish^
Students to choose one of the Foodfish or Ornamental Fish^ options.*

MINIMUM ENTRY REQUIREMENTS

At least 3 'O' Level passes in the following subjects and with at least three years of relevant working experience:

English Language (EL1 or EL2)	Grade 1 – 7
Any Mathematics subject	Grade 1 – 6
Any Science subject	Grade 1 – 6 OR

NITEC with GPA ≥ 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC in Technology/Service with GPA ≥ 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualification or equivalent (by sector, programme &/or level) with at least 3 years of relevant working experience and Workplace Literacy & Numeracy (WPLN) at Level ≥ 6 for English and Mathematics.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test.

The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can look forward to career opportunities in the ornamental fish, foodfish and related industries as aquarist, marine biologist, fish biologist, animal care and management officer, research or project officer, research technologist and technical support officer.

DIPLOMA IN APPLIED SCIENCE (CHEMICAL TECHNOLOGY)



COURSE CODE: PAG

APPLICABLE INDUSTRY: ENERGY & CHEMICALS

THE COURSE

This course provides participants with relevant knowledge and skills in process engineering, occupational safety and health, environmental technology, productivity and quality management to support the continued growth of the chemical, petrochemical and pharmaceutical industries. It aims to provide relevant, practical and applicable knowledge and skills by focusing on the process engineering principles and knowledge relevant to the operational requirements in the chemical and chemical-related industries.

COURSE STRUCTURE

Modular Certificate in Chemical Plant Unit Operations

Chemical Engineering Principles
Basic Unit Operations
Separation Processes

Modular Certificate in Chemical Plant Safety & Health

Occupational Safety
Occupational Health
Process Safety & Loss Prevention

Modular Certificate in Environmental & Waste Management

Water Treatment Technology
Air Pollution
Solid and Hazardous Waste

Modular Certificate in Chemical Processes

Process Instrumentation
Specialty Chemicals
Petrochemicals

Modular Certificate in Chemical Plant Optimization

Chemical Plant Operations Management
Chemical Plant Productivity Improvement
Chemical Plant Quality Improvement

MINIMUM ENTRY REQUIREMENTS

At least 3 'O' Level passes in the following subjects and with at least three years of relevant working experience:

English Language (EL1 or EL2)	Grade 1 – 7
Any Mathematics subject	Grade 1 – 6
Any Science subject	Grade 1 – 6 OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualification or equivalent (by sector, programme &/or level) with at least 3 years of relevant working experience and Workplace Literacy & Numeracy (WPLN) at Level \geq 6 for English and Mathematics.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Trained to be versatile, you can work in a broad range of companies in various industries. You can embark on careers in the chemical or pharmaceutical industries, where you can work as process technicians or laboratory technologists. You can also embark on a career in logistics or technical sales for chemical products. For those already working the chemical or pharmaceutical industries, the diploma will open up new opportunities for your career advancement in supervisory roles.

DIPLOMA IN BUSINESS PRACTICE (BUSINESS ADMINISTRATION)



COURSE CODE: PBO

APPLICABLE INDUSTRY: PROFESSIONAL SERVICES

THE COURSE

This course is designed to equip participants with a holistic education in business administration covering management, business environment, communication, and analysis.

COURSE STRUCTURE

Modular Certificate in Communication & IT Skills

Reports & Business Communication
Oral Presentations & Meeting Skills
Business IT & Applications

Modular Certificate in Business Environment & Marketing

Business Economics
Business Environment
Marketing Principles

Modular Certificate in Business Analysis

Business Accounting
Business Statistics
Problem-Solving Skills in Business

Modular Certificate in Business Management

Principles of Management
Operations Management
Management Accounting & Finance

Modular Certificate in People Management

Organisational Behaviour
Human Resource Management
Customer Service Management

MINIMUM ENTRY REQUIREMENTS

Minimum 3 GCE 'O' Level passes in the following subjects with at least 3 years of relevant working experience:

English	Grade 1 – 7
Mathematics	Grade 1 – 6
One other subject	Grade 1 – 6 OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC IN Technology/Services with GPA \geq 3.5 and with at least 2 years of relevant working experience AND successful completion of Bridging Programme offered by ITE OR

Higher NITEC IN Technology/Services with at least 1 year of relevant working experience AND successful completion of Bridging Programme offered by ITE OR

Relevant WSQ qualification or equivalent (By sector programme &/or level) with at least 3 years of relevant working experience AND Workplace Literacy & Numeracy (WPLN) at Level \geq 6 OR

Graduates of Temasek Polytechnic's Foundation Programme, conducted prior to October 2012

Entry Requirement Based on RPL

Career Readiness Certificate (CRC) at ANY of the following levels – Operations / Supervisory / Managerial

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can move into junior executive positions in private and public sectors.



THE COURSE

The course aims to produce competent and conscientious aerospace professionals who will be able to meet the demands of the industry, and have the ability to acquire and/or upgrade knowledge and skills relevant to their profession.

COURSE STRUCTURE

Modular Certificate in Aircraft Maintenance

Aircraft Maintenance Practices
Aircraft Materials & Hardware
Computer-aided Design

Modular Certificate in Aviation Management & Safety

Aviation Legislation & Human Factors
Project Management
Lean Processes

Modular Certificate in Aircraft Propulsion

Thermodynamics
Fluid Mechanics
Gas Turbine Engine

Modular Certificate in Aircraft Structures

Statics & Strength of Materials
Basic Aerodynamics
Airframe Structures

Modular Certificate in Avionics Fundamentals

Electrical Fundamentals
Electronic Fundamentals
Computer Programming

MINIMUM ENTRY REQUIREMENTS

At least 3 'O' Level passes in the following subjects with at least 3 years of relevant working experience:

English Language (EL1 or EL2)	Grade 1 – 7
Any Mathematics subject	Grade 1 – 6
Any Science subject	Grade 1 – 6 OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualification or equivalent (By sector programme &/or level) with at least 3 years of relevant working experience AND Workplace Literacy & Numeracy (WPLN) at Level \geq 6 for English and Mathematics OR

Admission Based on Recognition of Prior Learning (RPL)

Professional Certificate in Aerospace Engineering (PCAE) jointly awarded by TP and Lufthansa Technical Training Singapore (LTT) (passed with a minimum score of 50 per cent for all the seven modules namely, M03, M05, M06, M07, M08, M09 and M10 in the PCAE course) OR

SAR-66 Category A Licence from CAAS with at least three years of working experience in the relevant aerospace industry OR

AR-66 Category B Certification from CAAS (minimum 5 modules) with at least three years of working experience in the relevant aerospace industry.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

Subject Exemption based on RPL*

Applicants who have been given admission and have obtained any of the following attainments and experiences will be granted exemption for the subject Aircraft Maintenance Practices:

SAR-66 Category B Licence from CAAS with minimum five years of working experience in SAR-145 MRO companies;

SAR-66 Category A1 (Partial) Certification awarded by LTT (passed with a minimum score of 75 per cent for all the seven modules namely, M03, M05, M06, M07, M08, M09 and M10 in the PCAE course) will be granted exemptions in the following three subjects:

- Aircraft Maintenance Practices
- Aircraft Materials and Hardware
- Aviation Legislation and Human Factors

Applicants who have been given admission and have obtained WSQ Higher Certificate in Aerospace in ANY of the following 6 sub-sector tracks offered by TP:

- Aircraft Maintenance (Mechanical)
- Aircraft Maintenance (Avionics)
- Component Repair & Overhaul (Mechanical)
- Component Repair & Overhaul (Avionics)
- Engine / Engine Component Repair & Overhaul
- Engine Build

CAREER OPPORTUNITIES

Graduates of this course can ride on the growth of the global aerospace industry and the opening of Singapore's Seletar Aerospace Park for growing demand for skilled professionals such as Aerospace Technologists. Upon completion of their training in this course, graduates can expect to be involved in job areas in maintenance, repair and overhaul of airframe and engine, quality inspector, facilitator, planner, engineering assistant, etc. After gaining vital work experiences in this highly regulated aviation industry, some graduates can expect to attain supervisory role or work as technical field representative for an OEM.



THE COURSE

The course aims to produce competent and conscientious air transport specialists who will be able to meet the demands of the industry and acquire knowledge and skills relevant to their profession. Upon graduating from the course, graduates should be able to:

- Understand the fundamentals of ground handling operations and management which include passengers, ramp, baggage handling services, ground handling agreement and in-flight catering;
- Understand the principles in the operations and management of modern international airports, an overview of key players in terminal operations, terminal signage system, terminal ground operations, terminal contingency planning and airport emergency system;
- Understand the fundamentals of airport airside operations, airside operational system and functions, managing emergencies and conducting safety oversight;
- Understand the fundamentals of airline operations and management which include airline organisational structures and business modelling, route planning and development, airline and route profitability, air transport agreements and the regulatory framework of the airline industry, airline alliances, fleet and facilities planning, airline financing and revenue management, product development and acquisition, and key airline performance indicators; and
- Demonstrate knowledge of aviation security, management of crisis and business continuity management.

COURSE STRUCTURE

Modular Certificate in Ground Operations

Ground Handling Operations
Service Quality Management
Aviation Safety Management

Modular Certificate in Airport Operations & Management

Airport Operations
Airport Management
Airport Systems

Modular Certificate in Airport Airside Operations

Apron Operations
Airport Safety Oversight
Apron Control Management

Modular Certificate in Airline Operations

Airline Operations & Planning
Airline Management
Management of Air Cargo

Modular Certificate in Aviation Security & Crisis Management

Aviation Security
Business Continuity Management
Crisis Management

MINIMUM ENTRY REQUIREMENTS

At least 3 'O' Level passes in the following subjects with at least 3 years of relevant working experience:

English Language (EL1 or EL2)	Grade 1 – 7
Any Mathematics subject	Grade 1 – 6
Any Science subject	Grade 1 – 6 OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

Graduates of the Air Transport ELPs from Temasek Polytechnic.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can look forward to performing at different levels such as a team leader, passenger services manager or duty manager.

DIPLOMA IN ENGINEERING (OPERATIONS & SYSTEMS MANAGEMENT)



COURSE CODE: PEF

APPLICABLE INDUSTRIES: AEROSPACE, AIR TRANSPORT,
ELECTRONICS AND PROFESSIONAL SERVICES

THE COURSE

This course aims to equip participants with practical knowledge to enhance the productivity and service levels of their organisations. Participants will learn process and service improvement techniques, logistics management, decision analysis, systems thinking, as well as how to manage project and organisation as a whole. All these will enable participants to work more efficiently and effectively.

The Diploma in Engineering (Operations & Systems Management) covers the necessary body of knowledge that enables the graduates from the Diploma to sit for selected credential examinations such as:

- Certified Associate in Project Management (CAPM) or Project Management Professional (PMP; need to have at least a Diploma qualification) offered by the Project Management Institute (PMI)
- Six-Sigma Green Belt certification offered by Singapore Quality Institute (SQI) and American Society of Quality (ASQ).

Participants who have attained the Certificate in Process & Service Improvement, Certificate in Decision Analysis and Certificate in Systems Thinking & Methods will have a strong foundation to sit for the Six-Sigma Green Belt certification offered by the Singapore Quality Institute (SQI) and American Society for Quality (ASQ).

Participants who have attained the Certificate in Organisational Management will have a strong foundation to sit for selected credential examinations such as Certified Associate in Project Management (CAPM) or Project Management Professional (PMP; need to have at least a diploma qualification) offered by the Project Management Institute.

COURSE STRUCTURE

Modular Certificate in Process & Service Improvement

Service Quality & Management
Process Improvement
Process Management

Modular Certificate in Logistics Management

Inventory Management
Engineering Economy
Supply Chain Management

Modular Certificate in Decision Analysis

Decision Methods
Data Collection & Analysis
Statistics for Decision Making

Modular Certificate in Systems Thinking & Methods

Six Sigma Methods
Systems Concepts
Systems Modelling & Simulation

Modular Certificate in Organisational Management

Organisational Behaviour
Project Management
Quality Management Systems

MINIMUM ENTRY REQUIREMENTS

At least 3 'O' Level passes in the following subjects with at least 3 years of relevant working experience:

English Language (EL1 or EL2)	Grade 1 – 7
Any Mathematics subject	Grade 1 – 6
Any Science subject	Grade 1 – 6 OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualification or equivalent (By sector programme &/or level) with at least 3 years of relevant working experience AND Workplace Literacy & Numeracy (WPLN) at Level \geq 6 for English and Mathematics.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test.

The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can look forward to career opportunities in multiple industries as well and in functional roles such as:

- Productivity Manager
- Quality Assurance Engineer (or Assistant Engineer)
- Operations Executive
- Project Engineer
- Product Quality Engineer
- Customer Service Lead
- Logistics Head



COURSE CODE: PCI

APPLICABLE INDUSTRY: ICT & MEDIA

THE COURSE

This course aims to equip participants with the knowledge and relevant skills to manage, monitor and implement first level helpdesk support for the IT infrastructure department of an organisation.

COURSE STRUCTURE

Modular Certificate in ICT Essentials

Data Communications & Networking
Computer & Operating Systems
Basic IT Security

Modular Certificate in Mobile & Systems Management

Enterprise Networking
Client Platform Administration & Management
Mobile Device Management

Modular Certificate in IT Infrastructure & Service Management

IT Infrastructure Management
IT Service Desk Management
IT Service Design and Delivery

Modular Certificate in Network & Systems Security

Servers Administration & Security
Internetworking Technologies
Security Operations & Analysis

Modular Certificate in Network & Systems Technologies

Cloud Computing & Security
IoT Network Technology
Virtual Desktop Technology

MINIMUM ENTRY REQUIREMENTS

Minimum 3 GCE 'O' Level passes in the following subjects with at least 3 years of relevant working experience:

English Language (EL1 or EL2)	Grade 1 – 7
Any Mathematics subject	Grade 1 – 6
Any Science subject	Grade 1 – 6 OR

NITEC Certificate with GPA \geq 3.5 with at least 2 years of relevant working experience OR

Higher NITEC Certificate with at least 1 year of relevant working experience OR

NITEC in Technology with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Upon completing the part-time diploma course, graduates can look forward to taking up the following types of positions: system administrator, system engineer, system infrastructure specialist and technical support engineer.



THE COURSE

This part-time diploma course provides participants with the skills necessary to enable them to function effectively as paralegals in a legal office environment. It also provides a recognised qualification for those who wish to further themselves academically.

Those who complete the diploma programme will be proficient in the general administration and the day-to-day running of the law office or legal department.

COURSE STRUCTURE

Modular Certificate in Paralegal Skills 1

Legal Communications Skills
Legal Systems & Methods
Law of Tort

Modular Certificate in Paralegal Skills 2

Law of Real Property
Law of Contract
Criminal Law

Modular Certificate in Procedural Law 1

Criminal Procedure
Family Law
Principles of Civil Litigation 1

Modular Certificate in Procedural Law 2

Conveyancing Practice
Company Law
Principles of Civil Litigation 2

Modular Certificate in Law Office Management

Company Secretarial Practice
Accounting for Legal Executives
Management of Law Office & Court Technology

MINIMUM ENTRY REQUIREMENTS

Minimum 3 GCE 'O' Level passes in the following subjects with at least 3 years of relevant working experience:

English

Grade 1 – 6

Two other subjects

Grade 1 – 6 OR

Higher NITEC Certificate with at least 1 year of relevant working experience OR

NITEC Certificate with GPA \geq 3.5 with at least 2 years of relevant working experience OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualifications (by sector, programme &/or level), with at least 3 years of relevant working experience; and Workplace Literacy & Numeracy (WPLN) at Level \geq 6.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can look forward to career opportunities in roles such as paralegals, legal secretaries, law office managers and administrators.



THE COURSE

In the fast paced environment that we live in today, our police and security personnel play an extremely vital role in maintaining law and order, and ensuring the safety of our key installations.

COURSE STRUCTURE

Modular Certificate in Introductory Management 1

Principles of Management
Essential Computing Applications
Reports & Oral Presentation

Modular Certificate in Introductory Management 2

Managing People
Introduction to Law & Criminal Law
Business Communication & Meeting Skills

Modular Certificate in Police & Security Business Studies

Principles of Criminal Justice
Introduction to Statistics
Security Risk Management
Principles of Accounting & Finance

Modular Certificate in Security Studies 1

Electronic Security
Criminal Procedure & Law of Evidence
Physical Security

Modular Certificate in Security Studies 2

Aviation Security
Security Management
Mediation & Counselling

MINIMUM ENTRY REQUIREMENTS

3 GCE 'O' Level passes or equivalent with at least 3 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualification or equivalent (by sector, programme &/or level), with at least 3 years of relevant working experience; and Workplace Literacy & Numeracy (WPLN) at Level \geq 6 for English and Mathematics.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can look forward to career opportunities in roles such as police officer, auxiliary police officer and security manager.

Graduates from the following diplomas may be exempted from the elective Chief Security Officer training modules in their application for the Security Officer License:

- Diploma in Police & Security Studies;
- Diploma in Police Studies & Security Management;
- Diploma in Management & Police Studies.

In order to qualify for a full exemption to the Chief Security Officer PWM grade, one must pass the mandatory Chief Security Officer training module which is the 'Manage Security Agency Within Legal Framework'.

DIPLOMA IN SECURITY & FIRE SAFETY STUDIES



COURSE CODE: PBN

APPLICABLE INDUSTRY: SECURITY

THE COURSE

The field of private security continues to grow and face greater challenges in the knowledge-based economy. This course provides participants with the knowledge and skills in the area of Management, Computing, Business Communication and Criminal Law.

COURSE STRUCTURE

Modular Certificate in Introductory Management 1

Principles of Management
Essential Computing Applications
Reports & Oral Presentation

Modular Certificate in Introductory Management 2

Managing People
Introduction to Law & Criminal Law
Business Communication & Meeting Skills

Modular Certificate in Security Business Studies

Security Risk Management
Law for Security Practitioners
Principles of Accounting & Finance

Modular Certificate in Security Studies 1

Physical Security
Electronic Security
Criminal Procedure & Law of Evidence

Modular Certificate in Fire Safety Management & Security

Security Planning & Design
Security Management
Fire Safety Management

MINIMUM ENTRY REQUIREMENTS

3 GCE 'O' Level passes or equivalent with at least 3 years of relevant working experience OR

Higher NITEC with at least 1 year of relevant working experience OR

NITEC with GPA \geq 3.5 and with at least 2 years of relevant working experience OR

Higher NITEC in Technology/Service with at least 1 year of relevant working experience and successful completion of bridging programme conducted by ITE OR

NITEC in Technology/Service with GPA \geq 3.5 with at least 2 years of relevant working experience and successful completion of bridging programme conducted by ITE OR

Relevant WSQ qualification or equivalent (by sector, programme &/or level), with at least 3 years of relevant working experience; and Workplace Literacy & Numeracy (WPLN) at Level \geq 6 for English and Mathematics.

Subject Exemption based on RPL

Applicants who have been given admission and who have obtained **Fire Safety Manager (FSM) Certificate** (issued by SCDF or any SCDF accredited training institute) will be granted exemption in the subject Fire Safety Management.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can look forward to career opportunities in the security and fire safety management industry and to move into independent planning roles and more management-related positions.

Holders of this diploma are eligible to take up appointments as fire safety managers of buildings under the Fire Safety Act.

Holders of the following diplomas may be exempted from the mandatory and elective Chief Security Officer training modules in their application for the Security Officer Licence:

- Diploma in Security & Fire Safety Studies;
- Diploma in Security & Fire Safety Management.

“

Those people who develop the ability to continuously acquire new and better forms of knowledge that they can apply to their work and to their lives will be the movers and shakers in our society for the indefinite future.

- Brian Tracy

”

SPECIALIST DIPLOMAS

— A-Z —

SPECIALIST DIPLOMA IN ACCOUNTING & FINANCE



COURSE CODE: PBP

APPLICABLE INDUSTRIES: FINANCIAL SERVICES AND PROFESSIONAL SERVICES

THE COURSE

Designed for adults to deepen their knowledge and skills in accounting and financial management to take on higher level jobs in these disciplines. This course aims to:

- Provide candidates with a sound knowledge of accounting and finance in business organisations;
- Train candidates in the analysis and use of financial information;
- Equip candidates with the techniques for planning, managing and controlling financial resources;
- Impart problem-solving, thinking and research skills to candidates through article reviews, case studies and assignments.

COURSE STRUCTURE

Post-Diploma Certificate in Financial Accounting & Analysis

Financial Accounting
Financial Analysis

Post-Diploma Certificate in Management Accounting & Finance

Management Accounting
Financial Management

MINIMUM ENTRY REQUIREMENTS

At least a diploma or degree and at least 2 years of general work experience OR

Currently in managerial jobs requiring finance knowledge OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

The course will enhance participants' management competencies, and prospects for career advancement. It may also open opportunities for participants to switch to a career in accounting and finance.

Participants can also look forward to upgrading their knowledge and skills through further CET and professional programmes offered by international professional bodies. As the Specialist Diploma in Accounting & Finance is a mature and highly recognised course, graduands are granted modular exemptions in further training programmes offered by affiliated professional bodies.

SPECIALIST DIPLOMA IN AI SOLUTIONS DEVELOPMENT



COURSE CODE: PXX

APPLICABLE INDUSTRY: ICT & MEDIA

THE COURSE

This course focuses on deepening the knowledge and skills of participants to enable them to apply machine learning and deep learning algorithms to build and enhance solutions development. Upon completing this course, graduates will be able to undertake the following responsibilities:

- Implement machine and deep learning techniques and algorithms;
- Apply machine and deep learning algorithms to build and enhance existing solutions.

COURSE STRUCTURE

Post-Diploma Certificate in Machine Learning in AI

Principles of Machine Learning
Machine Learning Solutions Development

Post-Diploma Certificate in Deep Learning AI

Principles of Deep Learning
Deep Learning Solutions Development

MINIMUM ENTRY REQUIREMENTS

The minimum entry requirement is at least a polytechnic diploma (or equivalent) in a technology or IT-related course OR

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

At the entry level, participants will hold the job position of application developers. Upon completing the course, graduates can look forward to role expansion in their work scope. They can also look forward to upgrading their knowledge and skills through further CET and executive programmes offered by local Institutes of Higher Learning.



THE COURSE

This course aims to bridge and enhance the knowledge and skillsets of participants to enable them to enter the field of big data management. Big data management is the discipline that concerns itself with the organisation, administration and governance of large volumes of both structured and unstructured data. The goal of big data management is to ensure a high level of data quality and accessibility for business intelligence and big data analytics applications further downstream in the value chain. Effective big data management helps companies locate valuable information in large sets of unstructured data and semi-structured data from a variety of sources, including call detail records, system logs and social media sites.

Upon completion of the course, graduates will be able to:

- apply appropriate methods and tools to acquire and manage large data sets from various sources;
- apply appropriate methods and tools to visualize big data;
- manage big data projects.

Graduates will also obtain Statements of Attainment (SOAs) under the National Infocomm Competency Framework (NICF):

- T-BDA-302S-1: Prepare Data for Big Data Analytics
- IT-BDA-402S-1: Apply Data Visualisation

COURSE STRUCTURE

Post-Diploma Certificate in Big Data Systems Management

Big Data Systems Architecture
Data Security Fundamentals

Post-Diploma Certificate in Big Data Applications Development

Data Visualization Fundamentals
Big Data Programming

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma (or equivalent) in a technology or IT-related course OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can expect good employment prospects across many industries such as government, financial and banking institutions and consulting firms as big data specialist / engineer, big data operations specialists, big data technical support specialist, big data application developer, big data Hadoop/QA tester.

Graduates can also look towards upgrading their knowledge and skills in further Continuing Education and Training and executive programmes offered by local Institutes of Higher Learning such as the National University of Singapore Strategic Technology Management Institute which offers many National Infocomm Competency Framework certified executive courses in Big Data or Business Analytics.

SPECIALIST DIPLOMA IN BIOPHARMACEUTICAL TECHNOLOGY



COURSE CODE: PAI

APPLICABLE INDUSTRY: ENERGY & CHEMICALS

THE COURSE

The course prepares or re-profile graduates for work in the pharmaceutical or biopharmaceutical and related industries. It also serves as a platform for individuals who are already working in a related industry to upgrade or update their skills and knowledge. Upon completion of the course, graduates will have:

- theoretical and practical knowledge and skills to work in a manufacturing facility for the biopharmaceutical industry; and
- knowledge in Good Manufacturing Practice so that they are better prepared for work in the pharmaceutical industry

COURSE STRUCTURE

Post-Diploma Certificate in Upstream Bioprocess Manufacturing

Upstream Bioprocess Technology
Bioreactor Operations
cGMP

Post-Diploma Certificate in Downstream Bioprocess Manufacturing

Downstream Processing 1
Downstream Processing 2

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in science or engineering, or equivalent OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates will be able to take up technical and executive positions in the pharmaceutical, biopharmaceutical and related supporting industries.

SPECIALIST DIPLOMA IN BRANDING DESIGN



COURSE CODE: PDC

APPLICABLE INDUSTRY: ICT & MEDIA

THE COURSE

Providing creative branding solutions for brands in the marketplace by merely applying design and aesthetics approaches is no longer a formula for success for a brand. A deeper understanding of business concepts applied and integrated as part of the creative strategy results in a more holistic solution. This course will enable participants to acquire insights into both the theoretical and creative knowledge for building brands in practice at an advanced level. There will be a big focus also on Brand Strategy and Brand Systems which are currently the cornerstones for branding frameworks in today's industry context.

COURSE STRUCTURE

Post-Diploma Certificate in Brand Strategy

Developing Brand Strategy
Culture, Innovation & Branding

Post-Diploma Certificate in Brand Identity

Visual Brand Identities
Designing Brand Systems

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in a design-related course, or equivalent OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates will be able to advance their careers in the areas of brand strategies and brand systems design.

SPECIALIST DIPLOMA IN BUSINESS ANALYTICS



COURSE CODE: PCB

APPLICABLE INDUSTRIES: PROFESSIONAL SERVICES AND ICT & MEDIA

THE COURSE

The aim of this course is to bridge and enhance the knowledge and skillsets of participants to enable them to enter the field of business analytics.

On completion of the course, graduates will be able to:

- apply business intelligence techniques to produce reports on business performance;
- apply data analytics techniques to mine structured and unstructured data;
- select and use appropriate business intelligence and data mining applications to support business objectives;
- manage business analytics projects.

Graduates will also obtain Statements of Attainment (SOAs) under the National Infocomm Competency Framework (NICF):

- IT-IM-302S-1: Analyse Data & Generate Reports
- IT-STM-401S-1: Develop Statistical Model
- IT-TA-401S-1: Develop Text Analytics Process

COURSE STRUCTURE

Post-Diploma Certificate in Business Intelligence

Quantitative Analysis

Business Intelligence Fundamentals

Business Intelligence Project

Post-Diploma Certificate in Data Analytics

Data Mining Fundamentals

Social Media Analytics

Data Analytics Project

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in a business or technology-related course, or equivalent OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can expect good employment prospects across many industries such as government, financial and banking institutions and consulting firms as business intelligence analysts, business analytics specialists, business analytics tech consultants, Customer Relationship Management (CRM) analysts, data mining specialists, data warehousing specialists, web & social media analysts and research analysts.

Graduates can also look towards upgrading their knowledge and skills in further Continuing Education and Training (CET) such as the Diploma in Financial Analytics offered by Temasek Polytechnic, or through executive programmes offered by local Institutes of Higher Learning.



COURSE CODE: PCH

APPLICABLE INDUSTRY: ICT & MEDIA

THE COURSE

This course aims to equip participants with the knowledge and skills to operate and manage enterprise level Information Technology (IT) service centres, data centres, operations centres and networking centres in the area of cloud computing.

The course objectives are as follows:

- Design and implement cloud architecture;
- Analyse various cloud environments;
- Manage a shared services data centre environment;
- Execute data centre management projects..

COURSE STRUCTURE

Post-Diploma Certificate in Cloud Technology

Introduction to Cloud Architecture

Design and Development of Cloud Solutions

Post-Diploma Certificate in Data Centre Management

Shared Services and Management

Data Centre Management Project

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma (or equivalent) in a technology or IT-related course OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can expect good employment prospects across many industries such as government, Graduates of this course can ride on the growth of demand for Cloud Computing and they should be able to fill the following job roles:

- Cloud Infrastructure Engineer
- Cloud Services Product Analyst
- Cloud Software Engineer
- Cloud Operations Engineer
- Cloud Development Manger
- Cloud Operations Manager
- Cloud Services Product Manager

SPECIALIST DIPLOMA IN ENERGY MANAGEMENT & SUSTAINABLE DESIGN



COURSE CODE: PED

APPLICABLE INDUSTRY: ENVIRONMENTAL SERVICES

THE COURSE

There has been growing concerns about our environment and limited natural resources around the world. Energy efficiency and sustainable design will help to reduce energy consumption and environmental development which have been blamed for global warming and climate change. This course is targeted at diploma or degree holders who wish to develop their competency in sustainable design concepts, energy management and audit, application of energy efficiency technologies and energy economy. Upon graduating from the course, graduates will be able to:

- Assist in the conducting of energy audit measurements and data-logging
- Undertake basic efficiency evaluation of energy & utility systems
- Compare energy norms with existing energy consumption levels
- Collect and analyse measured data
- Assist in the preparation of measurements, monitoring and verification report
- Understand and apply sustainable design concepts
- Compare and apply energy management assessment standards

COURSE STRUCTURE

Post-Diploma Certificate in Building Systems

Air Conditioning & Mechanical Ventilation System
Hydraulics & Drives
Lighting Systems

Post-Diploma Certificate in Building Performance & Sustainability

Energy Management & Audit
Total Building Performance
Sustainable Design

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma or equivalent in engineering OR

Holders of other equivalent academic qualifications with minimum 1 year of working experience will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of the course will be able to take up positions in the following industries:

- Energy Service Company (ESCO)
- Facility Management (FM)
- Environmental Sustainable Design (ESD)
- M&E Consultant



THE COURSE

The course provides participants with the theoretical and practical knowledge to operate environmental and utility installations for the Environment & Water Industry and Manufacturing Industry. Graduates of the course will be equipped with:

- theoretical and practical knowledge/skills to operate environmental and utility installations for the Environment & Water Industry and Manufacturing Industry; and
- knowledge in environment management and environment legislation so that they are better prepared for work in the Environment & Water industry or Manufacturing industry

COURSE STRUCTURE

Post-Diploma Certificate in Water Treatment Technology

Industrial Utilities
Industrial Wastewater Treatment
Membrane Separation

Post-Diploma Certificate in Air & Solid Waste Management

Air Pollution Control
Solid & Hazardous Waste Management
Environmental Management System

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in science or engineering, or equivalent OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of the course will be able to take up positions in the following industries:

- Environment and water industry
- Manufacturing industry (chemical, pharmaceutical, semiconductor, food)
- Government and statutory boards (such as NEA, PUB, MEWR)

SPECIALIST DIPLOMA IN FINANCIAL ADVISORY SERVICES



COURSE CODE: PBR

APPLICABLE INDUSTRIES: FINANCIAL SERVICES AND
PROFESSIONAL SERVICES

THE COURSE

Designed for diploma graduates who are keen to gain deeper insights into the provision of financial advisory services and wealth management, the part-time Specialist Diploma in Financial Advisory Services course aims to equip students with the skills and knowledge to:

- Acquire new clients and build client relationships;
- Create sound financial plans to assist clients in reaching their financial goals;
- Explain how the investment products meet clients' needs;
- Perform data analytics for investment and marketing purposes.

COURSE STRUCTURE

Post-Diploma Certificate in Marketing & Financial Planning

Marketing & Client Servicing

Financial Planning & Needs Analysis

Post-Diploma Certificate in Investment Products & Data Analytics

Investment Products & Development

Data Analytics for Investment & Marketing

MINIMUM ENTRY REQUIREMENTS

The minimum admission requirement is a Polytechnic Diploma.

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

CAREER OPPORTUNITIES

Successful financial consultants with demonstrated sales record and capability to retain investable assets can look forward to career progression to become sales team leader / manager. Those with higher levels of success can aim to seek employment in priority banking or private banking.

SPECIALIST DIPLOMA IN FINANCIAL ANALYTICS



COURSE CODE: PXX

APPLICABLE INDUSTRY: FINANCIAL SERVICES

THE COURSE

This course focuses on equipping participants with knowledge and skills in financial analytics. Upon completing the course, graduates will be able to undertake the following responsibilities:

- apply business intelligence techniques to produce reports on business performance;
- select and use appropriate business intelligence applications to support business objectives;
- apply financial services knowledge to new Fintech business models;
- develop a financial analytics project using business intelligence techniques.

COURSE STRUCTURE

Post-Diploma Certificate Business Intelligence

Quantitative Analysis
Business Intelligence Fundamentals
Business Intelligence Project

Post-Diploma Certificate in Fintech Analytics

Fintech & Financial Services
Financial Analytics Project

MINIMUM ENTRY REQUIREMENTS

The minimum entry requirement is at least a Polytechnic diploma (or equivalent) in a business or IT-related course OR

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of the Specialist Diploma in Financial Analytics will be able to take on job roles such as Financial Analyst, Business Intelligence Developer and Market Research Analyst. They can also look forward to upgrading their knowledge and skills through further CET and executive programmes offered by local Institutes of Higher Learning.



COURSE CODE:

APPLICABLE INDUSTRY: FINANCIAL SERVICES

THE COURSE

This is a one-year programme targeted primarily at diploma holders and IT specialists from non-financial domains who want to deepen their skills in the area of Fintech, financial APIs and Blockchain.

Upon completing this course, graduates will be able to undertake the following responsibilities:

- apply financial services knowledge and processes to new Fintech business models;
- develop a financial analytics project using business intelligence techniques;
- implement open banking APIs techniques and algorithms;
- apply blockchain concepts and modelling techniques to build new Smart Contracts.

COURSE STRUCTURE

Post-Diploma Certificate in Fintech Analytics

Fintech & Financial Services
Financial Analytics Project

Post-Diploma Certificate in Fintech Apps Development

Open Banking APIs Development
Blockchain & Smart Contracts Development

MINIMUM ENTRY REQUIREMENTS

The minimum entry requirement is at least a polytechnic diploma (or equivalent) in a technology or IT-related course. It is preferred that participants have prior programming experience.

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates can apply their knowledge and skills to take on job roles such as financial systems/ applications developer, technical solutions architect and Blockchain software developer in the financial institutions with innovation labs or in Fintech startups.

SPECIALIST DIPLOMA IN HOTEL OPERATIONS & MANAGEMENT



COURSE CODE: PBQ

APPLICABLE INDUSTRY: HOTELS

THE COURSE

This course aims to equip participants with the skills and knowledge to:

- Manage increased responsibilities in key areas within the hotel sector including front office, food and beverage, and events/MICE
- Apply concepts of revenue management in rooms, F&B and events/MICE operations
- Implement customer service excellence practices and human resources approaches in the hospitality industry
- Operate in an environment impacted by resource constraints, rapid development in technology and the change in demographic profiles

This course may qualify for advanced standing in universities' undergraduate degree programmes.

COURSE STRUCTURE

Post-Diploma Certificate in Hotel Operations

Front Office Operations
Food & Beverage Business
Customer Service Excellence

Post-Diploma Certificate in Hotel Management

MICE Management
Human Resource Management
Hospitality Revenue Management

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma with a minimum three years of working experience, preferably from a related field OR

Candidates with other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Supervisory roles in front office, reservations, housekeeping, F&B outlets and events/conference services.

SPECIALIST DIPLOMA IN IC ASSEMBLY & TEST



COURSE CODE: PEH

APPLICABLE INDUSTRY: ELECTRONICS

THE COURSE

This course is to deepen the knowledge and skills of participants to enable them to undertake engineering functions in the field of IC Assembly & Test in the semiconductor industry.

Upon completing the course, the graduates will be equipped to undertake the following engineering functions:

- equipment engineering
- product test engineering
- process engineering

COURSE STRUCTURE

Post-Diploma Certificate in IC Manufacturing & Equipment

Manufacturing Execution & Management
Manufacturing Equipment & Troubleshooting

Post-Diploma Certificate in IC Process Technology

IC Packaging & Failure Analysis
IC Test & Measurement

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma (or equivalent) in engineering or a university degree in engineering or physical science OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

At the entry level, the job positions are associate engineers. Upon completing the course under the Earn and Learn Programme, graduates can look forward to role expansion in their work scope. They can also look forward to upgrading their knowledge and skills through further CET and executive programmes offered by local Institutes of Higher Learning.

SPECIALIST DIPLOMA IN INDUSTRIAL INTERNET OF THINGS



COURSE CODE: PEJ

APPLICABLE INDUSTRY: ELECTRONICS

THE COURSE

This course is to deepen the knowledge and skills of participants to enable them to undertake engineering functions in the field of Industrial Internet of Things (IIOT) in the electronics industry.

Upon completing the course, the graduates will be equipped with skills and techniques essential for them to develop smart solutions through IOT technologies, manage and analyse IIOT data for the system to gain value through informed intelligent decisions. Graduates can work in the following specialization areas that are required in companies at various stages of IIOT and Industry 4.0 adoption:

- Industrial IOT
- Engineering Analytics & Machine Learning
- Smart Sensors and Devices

COURSE STRUCTURE

Post-Diploma Certificate in IIOT Integration

Smart Sensors & Devices
IIOT Connectivity

Post-Diploma Certificate in Engineering Analytics

IIOT Data Management
Engineering Analytics & Machine Learning

MINIMUM ENTRY REQUIREMENTS

The minimum entry requirement is at least a polytechnic diploma (or equivalent) in engineering OR Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

At the entry level, participants will hold the job position of associate engineer. Upon completing the course under the Earn and Learn Programme, graduates can look forward to role expansion in their work scope. They can also look forward to upgrading their knowledge and skills through further CET and executive programmes offered by local Institutes of Higher Learning.

SPECIALIST DIPLOMA IN INFORMATION SECURITY & FORENSICS



COURSE CODE: PCG

APPLICABLE INDUSTRY: ICT & MEDIA

THE COURSE

This course aims to equip participants with the knowledge and skills to secure the information infrastructure of an organisation and perform digital forensics investigation for security incidents through using industry best practices and best-of-breed technologies.

COURSE STRUCTURE

Post-Diploma Certificate in Information Security

Information Security Management & Audit
Security Vulnerability Assessment

Post-Diploma Certificate in Digital Forensics Investigation

Digital Investigation & Forensic Techniques
Forensic Incident Management

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma (or equivalent) in a technology or IT-related course OR

An applicant with a polytechnic diploma (or equivalent) in any discipline and has relevant working experience in IT will be considered on a case-by-case basis OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

The course imparts practical skills that prepares the individual to take on cyber security roles such as IT security compliance, vulnerability assessment and incident response. The course may also lead to other. Career opportunities in the cyber security sector such as security analysts and digital forensics investigators.

SPECIALIST DIPLOMA IN INTEGRATED DIGITAL COMMUNICATION



COURSE CODE: PDB

APPLICABLE INDUSTRY: MEDIA

THE COURSE

The advertising landscape has evolved beyond mere creative and stylistic execution, thus it is necessary to encompass strategic appropriation of multi-channels, content creation, user interface and experience. This course will expose participants to a wider range of knowledge areas to formulate and execute an effective campaign for an ever-changing economy. It also includes analytical and rational implementation of strategies to engage consumers with different media applications. Techniques on applying conceptual thinking, methodologies, and processes in the creation of an effective integrated advertising campaign will be the mainstay of the course.

COURSE STRUCTURE

Post-Diploma Certificate in Digital Design

UX Design Methods
UI Design & Development
Designing for Digital Devices & Ecosystems

Post-Diploma Certificate in Advertising Communication

Innovation in Advertising
Social Media Strategy
Campaign Creation & Integration

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in a design-related course, or equivalent OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates will be equipped with the knowledge and skills to understand the various facets of consumer behaviour and user experience to enhance their job relevance and employability. They will be able to advance their careers in the areas of advertising, including creative design, production, strategy, planning and also new emerging areas in advertising communication.

SPECIALIST DIPLOMA IN INTERNET OF THINGS



COURSE CODE: PCE

APPLICABLE INDUSTRY: ICT & MEDIA

THE COURSE

This course provides participants with the core knowledge and skills required to engage in the creative development of innovative IoT solutions, with access to state-of-the-art technologies. Such skills would enable learners to develop disruptive solutions or improve productivity for their organisations. Upon completing the course, graduates should be able to:

- Understand architecture and system design of IoT;
- Design and develop smart IoT applications;
- Manage smart IoT projects.

COURSE STRUCTURE

Post-Diploma Certificate in IoT Technology

IoT Architecture
IoT System Design

Post-Diploma Certificate in IoT Smart Solutions

Smart IoT Applications
IoT Project

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma or equivalent in a technology or IT-related course OR

Relevant working experience could also be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of this course can work towards attaining industry certifications upon graduation. Furthermore, graduates would be in a position to propose and develop IoT solutions for their organisation in order to widen their business product or services offering or improvement in productivity.

SPECIALIST DIPLOMA IN LABORATORY MANAGEMENT & INSTRUMENTATION



COURSE CODE: PAK

APPLICABLE INDUSTRY: ENERGY & CHEMICALS

THE COURSE

Jointly offered by Temasek Polytechnic (TP) and Singapore Accreditation Council (SAC) of SPRING Singapore, the Specialist Diploma in Laboratory Management and Instrumentation programme aims to prepare graduates for work in SAC accredited and to-be-accredited laboratories. It also serves as a platform for individuals who are involved in analytical testing in laboratories to upgrade their skills and knowledge. Upon successful completion of the course, students will be able to:

- Describe the management and technical requirements of laboratory accreditation standards (for example, ISO/IEC 17025)
- Describe and apply knowledge on method validation
- Describe and apply measurement uncertainty and its determination
- Apply knowledge and skills on the modern analytical techniques used in laboratories
- Perform analytical testing in compliance with technical requirements of laboratory accreditation standards (for example, ISO/IEC 17025)

COURSE STRUCTURE

Post-Diploma Certificate in Laboratory Instrumentation

Advanced Applications in Chromatography
Inductively Coupled Plasma
Contemporary Applications of Mass Spectroscopy

Post-Diploma Certificate in Laboratory Management

Laboratory Accreditation & Quality Systems Management
Method Validation
Measurement Uncertainty

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in science or engineering or equivalent or a university degree in science or engineering, or equivalent OR

Holders of other equivalent academic qualifications from foreign institutions will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates will be able to take up technical positions and the skills learnt in this course would help the graduates in their career progression within their organisations.

SPECIALIST DIPLOMA IN MICE & EVENTS



COURSE CODE: PBS

APPLICABLE INDUSTRY: PROFESSIONAL SERVICES

THE COURSE

This course is to equip students with the knowledge and skills to:

- Apply strategies, skills and services related to the hosting of MICE-related events in the hospitality sector.
- Apply an operations framework for fairs, exhibitions and events.
- Develop compelling content and differentiated experiences for the MICE and events sector.
- Attract and manage a portfolio of sponsors to achieve event outcomes.
- Manage projects using a project management framework.
- Apply concepts of revenue management in MICE/events, tourism and travel operations.
- Use of digital media as a marketing platform in consumer engagement and to achieve marketing objectives.

COURSE STRUCTURE

Post-Diploma Certificate in Events Management

MICE Management
Events Curation & Sponsorship
Events Operations & Logistics Management

Post-Diploma Certificate in Tourism Operations

Revenue Management for Tourism Business
Digital Marketing in Tourism
Project Management

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma OR

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of this course will have developed deeper skills in key aspects of MICE an events business, specifically for roles in the area of project management, event management, research, event operations and event services.

SPECIALIST DIPLOMA IN ROBOTICS & AUTOMATION



COURSE CODE: PEK

APPLICABLE INDUSTRY: ELECTRONICS

THE COURSE

This course aims to deepen and equip participants with the relevant skills to meet the industry demands for trained specialists in robotics and control & automation. Upon completing the course, graduates will be equipped to undertake the following engineering functions:

- installation, commissioning, and maintenance of robotic and automation equipment
- troubleshooting of automation equipment
- application of robot for collaboration in workplace
- configuring programmable logic controllers (PLCs)

COURSE STRUCTURE

Post-Diploma Certificate in Robotics

Robotics Systems, Control & Troubleshooting
Robotics Integration & Adaptation

Post-Diploma Certificate in Automation

Automation Control & Interfacing
Manufacturing Equipment & Troubleshooting

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in engineering OR

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

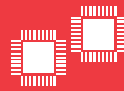
Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness.

Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of this course should be able to integrate robotics automation systems for robot assisted production as well as troubleshooting the various modules, parts and circuits of industrial robot. They will be ready to contribute constructively towards implementation of a smart manufacturing industry.

SPECIALIST DIPLOMA IN SEMICONDUCTOR TECHNOLOGY



COURSE CODE: PEC

APPLICABLE INDUSTRY: ELECTRONICS

THE COURSE

Employment in the semiconductor industry and those currently employed in the same field who also seek training in the specialised area of semiconductor technology. Upon graduation from the course, students should be able to:

- equip themselves with specialised skills and knowledge in the semiconductor field to enable them to contribute positively and productively at their workplace.
- acquire sound foundation in semiconductor technology principles to allow them more opportunities for further specialisation.

COURSE STRUCTURE

Post-Diploma Certificate in IC Manufacturing

IC Packaging & Electrical Testing (ICPET)
Semiconductor Devices & Integrated Circuits (SDIC)

Post-Diploma Certificate in Wafer Processing Technology

Wafer Fabrication Technology (WFT)
Cleanroom & Vacuum Technology (CVT)

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma in engineering or a university degree in engineering or physical science, or equivalent.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

For graduates of this course who are already working in the semiconductor related field, they can expand their job scope or venture into other technology area according to their company needs. For new entrants, they can take up some entry point job roles as: Associate Engineer, Associate Process Engineer, Associate Quality Engineer, and Associate Equipment Engineer in the areas of design and development, technical support, manufacturing, service and maintenance in the semiconductor field.

SPECIALIST DIPLOMA IN WAFER FABRICATION



COURSE CODE: PEI

APPLICABLE INDUSTRY: ELECTRONICS

THE COURSE

This course is to deepen the knowledge and skills of participants to enable them to undertake engineering functions in the field of wafer fabrication in the semiconductor industry. Upon completing the course, the graduates will be equipped to undertake the following engineering functions:

- wafer fabrication manufacturing practices
- various core processes of wafer fabrication
- equipment engineering and troubleshooting

COURSE STRUCTURE

Post-Diploma Certificate in Wafer Fabrication Manufacturing & Process

Option A: Manufacturing Practices

Manufacturing System & Practices
Environmental Health & Safety Practices
Statistical Process Control

Option B: Process Technology

Semiconductor Devices & Integrated Circuits
Process Engineering & Troubleshooting

Post-Diploma Certificate in Wafer Fabrication Equipment Technology

Vacuum Systems & Plasma Technology
Equipment Engineering & Troubleshooting

MINIMUM ENTRY REQUIREMENTS

At least a polytechnic diploma (or equivalent) in engineering or a university degree in engineering or physical science OR

Holders of other equivalent academic qualifications will be considered on a case-by-case basis.

Applicants who do not meet the entry requirements may be considered for admission to the course based on evidence of at least 5 years of relevant working experience or supporting evidence of competency readiness. Suitable applicants who are shortlisted may have to go through an interview and/or entrance test. The Polytechnic reserves the right to shortlist and admit applicants.

CAREER OPPORTUNITIES

Graduates of this course should be able to integrate robotics automation systems for robot assisted production as well as troubleshooting the various modules, parts and circuits of industrial robot. They will be ready to contribute constructively towards implementation of a smart manufacturing industry.



Temasek SkillsFuture
Academy

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The information in this brochure is accurate at the time of printing (Sep 2018) and may be subjected to change.
For the latest updates on the course information and entry requirements, please refer to website: www.tp.edu.sg/tsa