



2020 PROSPECTUS CONTINUING EDUCATION & TRAINING



# 2020 PROSPECTUS

CONTINUING EDUCATION & TRAINING

*Higher Nitec ■ Nitec ■ ISC*



All information contained in this Prospectus is correct at the time of publication (Mar 2020).  
ITE reserves the right to amend any part of the contents of this Prospectus without prior notice.

Not all the modules listed in this Prospectus are offered at every intake exercise.  
Applicants may apply only for modules that are advertised for the particular intake.

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# PROSPECTUS

ITE CET Qualification Framework

*Higher Nitec in Services Courses*

*Higher Nitec in Technology Courses*

*Nitec in Services Courses*

*Nitec in Technology Courses*

ITE Skills Certificate (*ISC*) Courses

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# INTRODUCTION

## **Our Mission**

***Create Opportunities for Students  
and Adult Learners to  
Acquire Skills, Knowledge and  
Values for Employability and  
Lifelong Learning***

## **Our Vision**

***A Trailblazer in Career Technical Education and  
Work - Study Training***

## **Our Values**

***Integrity***

***Teamwork***

***Excellence***

***Care***

# **ABOUT ITE – EDUCATIONAL EXCELLENCE IN A GLOBAL AND DIGITAL ECONOMY**

The Institute of Technical Education (ITE) was established as a post-secondary institution in 1992, under the Ministry of Education. ITE is a principal provider of career and technical education and a key developer of national skills certification and standards skilling Singapore for the future economy. It offers three key programmes - (1) Pre-Employment Training for youths after secondary education (2) Continuing Education and Training for adult learners and (3) Industry-Based and Work-Study Programmes with employers. Under its 'One ITE System, Three Colleges' Governance Model, ITE has three Colleges - ITE College Central, ITE College East and ITE College West.

## **SKILLS FOR THE FUTURE**

We are constantly motivated to do our best for our learners.

In recognition of our organisational excellence and global leadership, we received the prestigious Singapore Quality Award with Special Commendation, for the second time, in 2018. ITE was the first education institution in Singapore to have received the Award in 2011 and remains the only education institution in Singapore to have received it twice.

The Award is an affirmation of ITE's successful transformation journey. Together with our partners, staff and students, we have elevated technical education to one that is world-class, capable of setting new global benchmarks, and relevant to rapid-changing industry landscapes. By providing market-relevant skills, knowledge and values, the lives of our students are impacted positively. We shall continue our work in advancing technical education to skill Singapore for the future.

## **SKILLS FOR LIFE**

ITE's mandate is to meet the manpower needs and skill requirements for Singapore to seize opportunities not just locally, but also globally.

To cater to diverse learning needs for ITE graduates and adult learners, ITE provides customised options for lifelong learning, including in-employment training. Short courses are designed to be ABC (Accessible, Bite-sized and Convenient), where learning is focussed on enhancing employability, growing resilience to dynamic industry trends, and nurturing professional and personal interests.

## **PROFESSIONAL ENDORSEMENT OF ITE PROGRAMMES**

To ensure that our training syllabuses continually meet the needs and standards of industry, we have in place a well-established system to validate each course syllabus. Within the system, Academic Advisory Committees (AACs) are set up to examine and approve syllabuses of courses for the respective industries or occupational clusters. The AACs meet regularly to discuss and review the syllabuses, provide feedback on changes in industry, as well as provide specialist advice on technological trends. Each AAC comprises employer representatives, professionals and specialists from the respective industries.

## **ENRICHING LEARNING ENVIRONMENT**

Each ITE College is equipped with up-to-date educational facilities. Practical lessons are conducted in exciting, authentic learning environments, which simulate actual work environment, from aircraft hangars, high-end training kitchens and restaurants to sound stages, Augmented Reality/Virtual Reality studios, retail and healthcare labs.

Learning in ITE is increasingly a digital experience as well, where the latest technologies for teaching and learning for the digital economy are adopted in ITE Colleges.

## **COMPETENT AND CARING LECTURERS**

As part of providing good quality technical training, we believe in having staff who are effective and dedicated to their profession. Our lecturers are qualified professionals who are equipped with both the technical expertise and the pedagogic know-how. Lecturers undergo industry attachments at regular intervals not only to keep in touch with industry developments, but to provide value in collaborations.

# CERTIFICATE OF COMPETENCY COURSES FOR SKILLSFUTURE SERIES

## ABOUT SKILLSFUTURE SERIES

The SkillsFuture Series provides adult learners access to quality industry-relevant training programmes. Programmes are available in 8 emerging and critical areas in Cybersecurity, Data Analytics, Entrepreneurship, Finance, Tech-Enabled Services, Digital Media, Advanced Manufacturing, and Urban Solutions. Each area comprises a range of courses to cater to Singaporeans at all stages of learning - from beginning to intermediate to advance levels.

## CERTIFICATE AWARDED

Students are to attain attendance of at least 75% of the training. Successful completion of each course leads to a Certificate of Competency (CoC).

## ENTRY REQUIREMENT

In general, there is no entry requirement. In some courses, applicants may need to possess pre-requisite work knowledge or experience in relevant areas.

## DURATION

The duration of courses ranges from 7 to 60 hours, including assessment.

## FUNDING AND SUBSIDY

Singapore Citizens / Singapore Permanent Residents (SC/SPRs) are eligible for 70% course fee subsidy. The following enhanced funding schemes also apply:

- Mid-Career Enhanced Subsidy (MCES) scheme: 90% course fee subsidy for SCs aged 40 and above; and
- Workfare Training Support (WTS) scheme: 95% course fee subsidy for SCs aged 35 and above, and earning \$2000 or less per month.

SC/SPRs who repeat a course and foreigners with valid work pass will pay the full fee.

## INTAKE

There are 4 intakes yearly in January, April, July and October. Selected courses will be offered at each intake.

## COURSES

- **Urban Solutions**

- ***Urban Transport***

- CoC in Advanced Driver Assistance System

- CoC in Gasoline Engine Management

- CoC in High Voltage Awareness - Level 1

- CoC in High Voltage Expert - Level 2B

- CoC in Human Factors in Aviation Maintenance

- CoC in Hybrid Systems

- CoC in Introduction to Avionics Workshop Operations

- CoC in Introduction to Rapid Transit Electrical System

- CoC in Marine Diesel Engines Maintenance

### ***Urban Transport***

CoC in Preparation for High Voltage Expert - Level 2A  
CoC in Quality Assurance & Control for Marine Industries  
CoC in Rapid Transit Electrical Control System  
CoC in Rapid Transit Power System  
CoC in Vehicle Electronic Control Systems  
CoC in VTOL Aircraft (Drone) Operation  
CoC in VTOL Aircraft (Drone) Repair, Operation & Maintenance

### ***Urban Living***

CoC in Building Drawings & Submission  
CoC in Building Information Modelling: 3D Modelling  
CoC in Building Information Modelling: Engineering Graphics  
CoC in Computer Networking (Routing)  
CoC in Computer Networking (Switching)  
CoC in Electrical Control of Air-conditioning Systems  
CoC in Electrical Installation Code of Practice  
CoC in Electrical Installation Design  
CoC in Electrical Installation Inspection & Testing  
CoC in Electrical Switchboard Testing & Maintenance  
CoC in Electrical Principles for Electrical Installation  
CoC in Fire Detection & and Emergency Voice Communication System  
CoC in Fire Protection System  
CoC in Installation & Commissioning Air-conditioning Systems (R32 Split Unit)  
CoC in Intelligent Building Control System (KNX)  
CoC in Interior Applications  
CoC in Interior Construction  
CoC in Introduction to Digital Technology in Environment Services  
CoC in Intrusion & Access Control Technology (Workplace Protection)  
CoC in Lift Installer  
CoC in Lift Maintenance for Lift Specialist  
CoC in Lift System & Equipment Maintenance  
CoC in Maintenance of Air-conditioning Systems (R410a Split Unit)  
CoC in Network Programmability Essentials  
CoC in Plumbing Basics  
CoC in Plumbing Maintenance  
CoC in Residential Wiring Maintenance  
CoC in Security Project Cable Termination  
CoC in Security Project T&C and Handover  
CoC in Smart Home System (C-Bus)  
CoC in Smart Home System (KNX)  
CoC in Smart Home System (Voice Control)  
CoC in Smart Home System (Z-Wave)  
CoC in Smart Living Solutions (e-Home)  
CoC in Solar Photovoltaic (PV) & Standby Generator Supply  
CoC in Surveillance Technology (Workplace Protection)  
CoC in Urban Farming (Compost & Fertiliser)  
CoC in Urban Farming (Pest & Diseases)  
CoC in Urban Farming (Soil & Planting Techniques)

- **Advanced Manufacturing**
  - CoC in Cloud Computing Essentials
  - CoC in Cloud Practitioner Essentials
  - CoC in Data Visualisation Fundamentals
  - CoC in Internet of Things (Smart Energy Fundamentals)
  - CoC in Internet of Things (Smart Energy Management)
  - CoC in Introduction to Digitalisation in Automation
  - CoC in Introduction to Industrial Robot
  - CoC in IoT Applications
  - CoC in Machining Analytics
  - CoC in Micro:bit Applications
  - CoC in Practical Robotics
  - CoC in Smart Industry Readiness Index (SIRI) Implementation
- **Cybersecurity**
  - CoC in Cyber Security (Network, Internet & Forensics)
  - CoC in Cyber Security Fundamentals
  - CoC in Cybersecurity - Cyber Hygiene
  - CoC in Windows OS Hardening
- **Data Analytics / Digital Media**
  - CoC in Creating Digital Retail Touchpoints (Gamification)
  - CoC in Data Analytics Using Microsoft Excel
  - CoC in Fundamentals of Data Visualisation using Tableau
  - CoC in Fundamentals of Data Visualisation using Power BI
  - CoC in Python Programming with Excel Automation
  - CoC in Social Media Marketing Strategies For Startups
- **Entrepreneurship**
  - CoC in Applied Design Thinking (Experience Fundamentals)
  - CoC in Applied Design Thinking (Understand Fundamentals)
  - CoC in Brand Positioning: Create Your Brand Personality to Drive Sales
  - CoC in Entrepreneurship 101 (Customer Engagement with Chatbot)
  - CoC in Entrepreneurship 101 (Marketing Campaign with Augmented Reality)
  - CoC in Entrepreneurship 101 (Target Market with Data Analytics)
  - CoC in Flexipreneur for a Gig Economy: Create Your Online Portfolio
  - CoC in Flexipreneur for a Gig Economy: Win That Client
  - CoC in Introduction To Managing A Hawker Business
- **Tech-Enabled Services**
  - CoC in 'C' Licence Football Coaching with Tech Enablement
  - CoC in Administration of Medication with Tech-Enablement for Enrolled Nurses
  - CoC in AI 101: Customer Relationship Management Chatbot
  - CoC in Career Portfolio Preparation (Enhancing Professional Digital Presence)
  - CoC in Dementia Care & Smart Solutions
  - CoC in Dementia Care in the Technological Era
  - CoC in e-Business Development & Internet Marketing
  - CoC in E-Payments 1-2-3
  - CoC in Essential Skills in Mobile Device Servicing
  - CoC in Robotic Process Automation (RPA) for Beginners

Course details are available at [www.ite.edu.sg/courses/part-time-courses/CoC](http://www.ite.edu.sg/courses/part-time-courses/CoC).



# **GENERAL INFORMATION**

# ITE CET CERTIFICATION SYSTEM

The ITE CET Certification System comprises:

- **Specialist Nitec** for training courses that require *Higher Nitec/Nitec* in Services/Technology or *Higher Nitec/Nitec* qualifications as an entry requirement;
- **Higher National ITE Certificate (Higher Nitec)** in Services/Technology for training courses that require GCE 'O' or relevant *Nitec* in Services/Technology as an entry requirement;
- **National ITE Certificate (Nitec)** in Services/Technology for training courses that require completion of GCE 'N', GCE 'O' or relevant *ISC* as an entry requirement; and
- **ITE Skills Certificate (ISC)** for training courses that require completion of primary education as an entry requirement; and
- **ITE Certificate of Competency (CoC)** for bite-sized training courses that do not require formal qualification for admission.

# ITE TRAINING SYSTEM

## SEMESTER-BASED CREDIT TRAINING SYSTEM FOR CET COURSES

CET courses are conducted on a Semester-based Credit System of Training (SCT). In SCT, courses are structured and offered as individual modules where credits are assigned to each module, based on training hours and effort. A module is a self-contained unit of study, covering selected topics of a subject area. Depending on the demand, not all the modules in the CET courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

A student can enroll for the modules according to his/her training needs. Each module is to be completed within a 6-month term.

## IN-MODULE ASSESSMENTS AND END-OF-MODULE EXAMINATIONS

Assessment for each module will be based on the following modes:

- **In-Module assessments**
- **End-of-Module examinations**

Generally, the pass mark for each module is 50% (or other marks as determined by the course) and is based on the weighted aggregate score of the in-module assessments and end-of-module examinations. The weightage for in-module assessments and end-of-module examinations varies for each module.

## IN-MODULE ASSESSMENTS

In-module assessments are intended to give recognition to the continuous learning of students in studying the module. The number of in-module assessments students will have to take is different for each module. Examples of in-module assessments include written tests and assignments, practical tests and assignments, and projects.

To successfully complete each module, you will need to pass the critical skills required.

## END-OF-MODULE EXAMINATIONS

End-of-module examinations test how well students can integrate the various competencies and knowledge acquired in the module. End-of-module examinations may include written examinations and practical examinations.

## ELIGIBILITY TO SIT FOR END-OF-MODULE EXAMINATIONS

Students must achieve a minimum of 80% module attendance rate to be eligible to sit for the end-of-module examinations. A student's attendance rate is computed based on the cumulative lesson hours for each module in a semester. Students who did not satisfy the module attendance rate will be debarred for the module and deemed to have failed the module.

## CREDITS

When students passed a module, they will earn credits of the module.

## GRADE POINT AVERAGE

The Grade Point Average (GPA) represents a student's current standing in the course of study. It is the ratio of the total grade points earned to the total credits attempted to date. The final GPA score at the point of graduation determines the overall performance of the student in the course of study.

## GRADING SYSTEM

Performance in a module will be graded in one of the following grading systems:

Grade	Grade Scale	Description
Distinction	4	Distinction*
A	4	Excellent
B	3	Very Good
C	2	Good
D	1	Pass
F	0	Fail
Grade	Grade Scale	Description
DS	Not Applicable	Distinction#
P	Not Applicable	Pass
F	Not Applicable	Fail

\* 'Distinction' grade is awarded to the top 5% of the *Higher Nitec* and *Nitec* students who sat for the module and scored Grade 'A'. The 'Distinction' grade is not applicable to the Industry Attachment (IA), Lifeskills and other modules, as stated in the Assessment Scheme.

# The 'DS/P/F' grades are only applicable for *ISC* courses.

'P/F' grades are only applicable to cross-level electives, diploma electives, special project electives, overseas electives, selected Joint ITE-Industry electives and any other modules as stated in the Assessment Scheme.

## IF YOU FAIL A MODULE

Students who fail a module will be required to repeat the module. Students are not allowed to repeat the module that they have passed to get a better grade.

Students are allowed up to the 14th week<sup>^</sup> of course start date to withdraw from the module they have enrolled in. Thereafter, students who do not complete the module will be deemed as having attempted and failed the module. This failed module will be accounted in the GPA.

## RELEASE OF MODULE RESULTS

The date of the release of module results is posted on the ITE Home Page at the end of each term. Students can view their module results via ITE Student Portal or SMS (if students have subscribed for SMS services) from the date of the release of module results.

A Statement of Results will also be issued to the students. The Statement of Results shows the grades and credits earned in all the modules that the students have taken in that term, as well as their current and cumulative GPAs.

<sup>^</sup>Excludes ITE vacation weeks

## **CERTIFICATION**

A Module Certificate for a *Higher Nitec* in Services/Technology or *Nitec* in Services/Technology course of study will be awarded for the module(s) that a student passed in an examination series.

Students who meet the certification requirements of course of study in the same mode of training within 6 years from the first set of approved assessment results, may be awarded the *Higher Nitec* in Services/Technology or *Nitec* in Services/Technology or *ISC* full certificate and an academic transcript.

Students should seek advice from the Department of the College offering the CET course, on the modules that need to be completed, to qualify for a full certificate.

## **APPLICATION FOR CERTIFIED STATEMENT, STATEMENT OF RESULTS OR ACADEMIC TRANSCRIPT**

Students may apply for a Certified Statement (no replacement of original certificate) or a copy of the Statement of Results or Academic Transcript using the prescribed application form with payment of \$10 per type of statement requested, at any ITE Customer & Visitor Centre.

## **COLLECTION OF CERTIFICATES**

Graduates and students will be informed in the Statement of Results to collect their certificate from the Administration Office/Customer & Visitor Centre of their College of study during office hours or at the College Graduation Ceremony as advised by their College. Certificates not collected within 1 year from the date of issue, will be destroyed and will not be re-issued. Please refer to ITE Website for the telephone numbers and office hours of the Administration Office/Customer & Visitor Centre.

If graduates or students are unable to collect their certificate personally, they can authorise another person to collect the certificate on their behalf. During the collection, the authorised person (Proxy) needs to produce an Authorisation form signed by the graduate/student and a photocopy of graduate/student's NRIC/Employment Pass/Work Permit. The authorised person (Proxy) is also required to show his/her original NRIC/Employment Pass/Work Permit.

## **CERTIFICATE OF MERIT**

Certificate of Merit (COM) is generally awarded to the top 5% of the graduates from a course. Graduates must have passed all modules at the first attempt within normal course duration and have achieved outstanding performance in their course of study, with a cumulative GPA of 3.5 or above, at the point of graduation.

## **COURSE MEDAL**

The Course Medals are awarded to the outstanding COM holders in each course. The number of Course Medals awarded for each course is based on the number of graduates of the course, subject to a maximum of 3 medals per course.

Graduates will be awarded a Gold, Silver or Bronze Course Medal, based on their overall performance in their course of study and other contributions.

## **TOP GRADUATE AWARD**

CET graduate with outstanding performance and who has displayed exemplary qualities of lifelong learning and upgrading efforts, will be considered for one of the Top Graduate Awards.

# **e-LEARNING**

## **e-LEARNING AND ITS BENEFITS**

e-Learning aims to enable students to have more flexibility in 'when' and 'where' they learn through the use of technology. Students may also participate in learning activities such as group discussions, attempt online tests and quizzes to check their progress or review what they have learned.

Under e-Learning, the Theory hours will be scheduled into face-to-face and self-directed learning (SDL) sessions.

- During the face-to-face sessions, the lecturer will be present in class to guide the students' learning.
- During the SDL sessions, students will access online materials on their own using ITE's myConnexion system and any other learning resources provided by the lecturer. There will be no classroom lessons. Students may email their lecturers if they need help.

To extend the benefits of e-learning to students, SDL sessions are incorporated for all *Higher Nitec* and *Nitec* modules.

## **REQUIREMENTS OF e-LEARNING**

Students need to have Internet access in order to access myConnexion. If students do not have access to the Internet, self-access rooms would be made available at the College. Your lecturer will inform you of the schedule when the term starts.

## **ATTENDANCE COMPUTATION**

SDL hours are included in the total attendance hours to determine students' eligibility to sit for the end-of-module examination. However, SDL hours are not claimable under SSG's Absentee Payroll funding.

## **ACCESS TO WI-FI SERVICE**

Students may access Wi-Fi service while on ITE campus. To login to the Wi-Fi service, simply go to your ITE Student Portal account at <https://myportal.ite.edu.sg> and click on "myEmail" to obtain your login ID and password.

## MODULE EXEMPTION

Students can apply for exemption from one or more modules in a course of study, based on their relevant prior learning acquired from ITE or other recognised institutions.

### MODULE EXEMPTION BASED ON NON-ITE CERTIFICATIONS

The number of modules to be granted exemption based on relevant prior learning acquired from other recognised institutions, shall not exceed 50% of the total credits required for certification of the course. For example, for a course that requires 72 credits for certification, maximum module exemption(s) will not exceed 36 credits.

For WSQ holders, the number of module exemption(s) granted shall not exceed 75% of the total credits required for certification of the course.

### EVALUATION CRITERIA

Applicants will need to produce evidence of their prior learning. Applications will be evaluated based on:

- Certified learning acquired is still relevant and current;
- Relevant work experience acquired from local companies, if any; and
- A one-off practical test to be taken by applicants, if deemed necessary at the discretion of ITE.

### APPLICATION RULES

To be eligible to apply for module exemption, applicants must observe the following rules:

- Applicants are to apply for module exemption after registering for a CET course of study and before the course starts. You will not be able to apply for module exemption after the course has begun.
- Applicants should not apply for the same module exemption at different Colleges. Unsuccessful applicants may re-apply for exemption for the same module, if they have acquired additional relevant learning and/or qualification(s) during the course of study.

### HOW TO APPLY?

Application for module exemption must be submitted to the Customer & Visitor Centre of applicants' College of study, before the start of the module training. Take the following steps:

- Download the application form from [www.ite.edu.sg/admissions/part-time-courses/application-forms-for-cet-skills-courses](http://www.ite.edu.sg/admissions/part-time-courses/application-forms-for-cet-skills-courses) or obtain a set from the Customer & Visitor Centre of their College of study.
- Submit completed application form to applicant's College of study, with supporting documents as follows:
  - Certified true copies of relevant certificates. Certificates issued by foreign institutions must be endorsed by the relevant embassies;
  - Detailed results;

- Relevant syllabus(es) with breakdown of curriculum duration for theory lessons and practical training;
- Type and mode of assessment of the certified learning;
- Pre-requisite(s) for the certified learning, if any; and
- Relevant local work experience, if any, and endorsed by employer(s).

All supporting documents must be in English. Documents in other languages will not be considered in the evaluation.

- Pay a non-refundable evaluation fee of \$50 per module at the point of submission. Payment may be made by cheque, made payable to “Institute of Technical Education” or “ITE”, or using NETS or credit card.
- Where required in the evaluation process, applicants may have to:
  - Attend an interview; and/or
  - Take a practical test of 1 to 2-hour duration for a module applied. An additional test fee of \$70 per module has to be paid on the day of the test, and the receipt produced before taking the test.

Failure to turn up for the interview or the practical test, which will be conducted during office hours, or make payment for the practical test, will render the application void and invalid.

### **NOTIFICATION OF RESULTS**

Applicants will be notified of the outcome of their application by post within one month from date of application for module exemption.

### **MODULE FEE PAYABLE BY SUCCESSFUL APPLICANTS**

Successful applicants can apply for a refund of module fee if they have enrolled in the module for which exemption is given. The refund application is subject to ITE’s prevailing refund policy.

### **MODULE EXEMPTION/MODULE TRANSFER BASED ON ITE CERTIFICATIONS**

Students who completed some modules from their previous ITE course under other modes of ITE training (Full-time or Traineeship), may apply to continue their outstanding modules in a related course under CET and graduate with a CET Certificate. To qualify, applicants must be at least 18 years old, and have accumulated at least one year of work experience. They must complete the CET course within a 6-year time frame from the date of first examination taken.

# ACADEMIC REGULATIONS

## EXAMINATION REGULATIONS

All candidates taking examinations of the Institute of Technical Education (ITE) must comply with the rules below. Candidates who fail to observe any of these rules may be disqualified from the examinations.

### Examination Schedule

Candidates are responsible for presenting themselves for examination on the date and time shown in My Exam Schedule via ITE Student Portal and report at least 20 minutes before the examination time.

### Before Examination Day (for computer-based examinations)

Candidates should access the online practice examination via ITE Student Portal at <https://myportal.ite.edu.sg> to familiarise themselves with taking computer-based examinations.

Computer-based examinations are accessed through ITE Student Portal. Candidates should use the correct passwords to access the portal. Otherwise, they may lose time in resetting the password or not be able to take the examinations.

### Before the Start of the Examination

Only candidates who have registered for the examinations, are permitted to enter the examination centre.

Candidates must bring with them their photo ID (e.g. NRIC, Work or Dependant's Pass) for identification. International candidates whose Employment Pass or Work Pass has expired before the examination, can seek approval from their Section Head to use their Passports for identification instead. The candidates must still write their Work or Dependant's Pass number on the answer scripts.

Candidates are to place their photo ID on their desks throughout the examination for verification by Invigilators. If the identity of the candidate is in doubt, Invigilators may take a photograph of the candidate for separate verification.

Candidates taking computer-based examinations should also refer to "Additional Instructions on Computer-based Examinations" and pay attention to the additional instructions announced by the Presiding Examiner or Invigilator at the examination centre before the commencement of the examination.

Candidates shall be expelled from the examination centre if their identification documents do not belong to them.

Candidates must be properly attired when they appear for the examination. Full-time candidates are required to be in their College uniforms when sitting for the examination in their College. Otherwise, they may be barred from the examination.

While in the examination centre, candidates are not allowed to possess books, documents, pictures, notes and any unauthorised materials other than those provided by the examination centre. Electronic and communication devices (e.g. mobile phones, cameras, tablets, smart

wrist watches / glasses, and pens with image capturing capabilities, etc.) that are capable of displaying visual or verbal information are also not allowed. Any candidate found to be in possession of such materials or devices will be liable to the same penalty as those detected for dishonesty during examinations. If communication devices are left at the front or back of the examination room, they must be switched off. ITE will not be responsible for any loss of personal belongings.

Candidates are not allowed to borrow stationery and mathematical instruments such as rulers and calculators from other candidates during examinations.

Candidates are permitted to use only non-programmable electronic calculators that are silent. Calculators that give out sound, need external power supply or transmit signals are strictly prohibited. Calculators must not be used for the retrieval of storage data, text or instructions or for the graphical representation of functions and data.

Candidates should refer to the guidelines on the unacceptable features of calculators for ITE examinations. Candidates are not allowed to bring instruction manuals, external storage media and other peripherals into the examination centre.

Candidates are not permitted to eat, drink or smoke in the examination centre.

#### Paper-based examination<sup>1</sup>

Candidates are given about 10 minutes before the scheduled examination start time to read the question paper. Candidates must not start writing until instructed to do so by the Presiding Examiner or Invigilator.

#### Computer-based examination

Candidates are given about 10 minutes to read the Administrative Instructions page and Examination Paper Instructions displayed on candidate's screen. At the start time of the examination, the system will allow candidates to begin the examination.

Candidates must inform the Presiding Examiner or Invigilator immediately if they are not issued the correct module examination or supplementary materials (e.g. formulae sheet).

### **During the Examination**

Candidates are not allowed to enter the examination centre once 30 minutes have passed from the scheduled start time of the examination.

Candidates may leave the examination centre after 30 minutes from the start of the examination. They will not be allowed to return to the examination centre unless an Invigilator or a person authorised by the Presiding Examiner has accompanied them while they were away. If the candidate needs to temporarily leave the examination room escorted by an Invigilator, he/she should navigate to the Progress Summary page to protect his/her responses.

Candidates are not allowed to place any documents including 'Instructions to Candidates' on their desks during the examination.

Candidates must not, for any reason, communicate with any other candidates during the examination. Candidates shall not do anything which causes unnecessary distraction to other

<sup>1</sup> Paper-based examination refers to both written and practical examinations.

candidates. Candidates who are guilty of improper conduct or misbehave themselves, may be expelled from the examination centre.

Candidates who wish to communicate with an Invigilator must remain seated and raise their hands.

Candidates will be stopped from proceeding further in the practical test if they continue to adopt an unsafe or dangerous method of operation despite warning. An unsafe or dangerous method of operation is one which may injure candidates or cause damage to machines or equipment.

Candidates are liable for any damage to machines, tools and equipment arising from their negligence.

Candidates should use black or blue ballpoint pen during the examinations. Candidates are also reminded to use a soft-lead pencil (e.g. 2B) to shade their answers in the Multiple Choice Answer Sheets. A soft eraser should be used for erasure if candidates wish to change their answers. It is the responsibility of the candidates to ensure that answers are presented clearly in the Answer Sheet / Answer Scripts for marking.

Candidates who are allowed into the examination hall/room within 30 minutes after the scheduled start time of the examinations will not be given extra time for the examinations.

## **At the End of the Examination**

### Paper-based Examinations

To facilitate the administration and collection of answer scripts, no candidate is allowed to leave the examination centre during the last 15 minutes of the examination.

Candidates should stop writing / working immediately when instructed by the Presiding Examiner or Invigilator.

Candidates should remain seated while the answer scripts / practical works are being collected. Candidates can leave the examination centre only after they have been told to do so by the Presiding Examiner or Invigilator.

For examinations where more than one relay is carried out, candidates are not allowed to leave until the end of the examinations unless otherwise instructed by the Presiding Examiner.

Candidates should not take the question paper, used and unused answer booklets or any items issued by the Invigilator out of the examination hall/room unless otherwise stated.

### Computer-based Examinations

After the first 30 minutes from the start of the examination, candidates must raise their hands if they want to submit the examination paper. Once confirmed by the Invigilator, the candidate can leave the examination room after submitting the examination paper.

Examination paper will be auto-submitted by the system if the candidate has not submitted at the examination end time.

Candidates must not exit the application or shutdown the PC / notebook.

### **Academic Dishonesty**

Candidates are guilty of dishonesty if they cheat or attempt to cheat, during the examination.

Candidates found guilty of dishonesty will be graded 'Fail' and may face disciplinary action.

### **Posting of Examination Material Online**

Candidates are not allowed to post any examination-related copyright material (e.g. whole or part of question(s), question paper, answer script) on any social media or web page. Candidates who are found to have done so will be subject to disciplinary action.

### **Deferment of Examination**

Candidates who are unable to sit for an examination but have a valid reason, can seek for a deferment to the next examination series. Candidates are to submit their requests to their Section Heads for approval before the date of examination.

For reasons of absence that cannot be known beforehand, candidates must submit their applications with supporting documents within the **next two working days** from the date of examination. The supporting documents should preferably be the original copy. However, in cases where the supporting documents are required by more than one party (e.g. more than one college/department for examinations at different colleges), photocopies of the supporting document can be accepted. However, the photocopy must be certified as true copy by ITE staff who are designated as Lecturers and above after original copy is sighted.

### **Absence from Examination**

Candidates who are absent from an end-of-module examination without ITE's approval will be considered to have failed the module.

### **Infectious Diseases and Hospitalised Candidates**

Candidates who are suffering from any infectious disease (e.g. chicken pox, SARS, H1N1) are **not allowed** to sit for the examination in their usual examination centre. Arrangements for a hospitalised candidate to sit for examination will be considered on a case-by-case basis.

### **Major Train Service Disruption**

In the event of major train service disruption, candidates should still make their way to their examination centres. Candidates may be allowed to take examinations with full duration given if they arrive before the end of the examination and provided no other candidates have left the examination centre. Otherwise, candidates may be allowed to take make-up examinations.

### **APPEALS REGULATION**

Candidates may appeal to review their module results, if they have reasons to believe that the module grade awarded for a particular module should have been better. Appeals must be made before the closing date shown on the ITE Website. Late appeals will not be entertained.

Appeals must be made on prescribed forms with payment of a deposit of \$20 (inclusive of GST) per module at the ITE Customer & Visitor Centre of the Candidate's college. If the appeal results in a change of the module grade, the deposit will be refunded.

Candidates will be informed in writing of ITE's decision on the appeal. The decision of ITE for the appeal is final.

# GETTING A PLACE IN ITE

## AGE CRITERION

Applicants must be at least 18 years old as at 1 January of intake year.

The offer of an ITE course to applicants is subject to them being physically, medically and mentally fit to pursue the course. This is to ensure that all students can benefit from ITE training in a safe and conducive environment. Applicants or students assessed by ITE as being unfit can be withdrawn from the course. Where appropriate, they may be considered for other suitable courses.

Applicants who are not Singapore Citizens or Singapore Permanent Residents may apply for CET programmes offered by ITE.

## ACADEMIC QUALIFICATION

Applicants who do not meet the academic entry requirements for the CET courses can upgrade their academic qualification through the General Education (GE) programme.

The **GE Programme** offers a wide range of subjects from Secondary One Normal (Academic) to GCE 'N' and GCE 'O' levels. Generally, classes run from March to October each year, and lessons are held once a week for each subject.

## ENTRANCE TEST

For skills courses, applicants can also register and sit for an Entrance Test conducted by ITE at a fee of \$10 (inclusive of 7% GST). The Entrance Test (of about 1 hour 40 minutes duration) is available online for walk-in applicants at any ITE Customer & Visitor Centre. The test result is known on the same day of the test. There is no need to pre-register for the test.

## FOR MORE INFORMATION

For more information, please contact any ITE Customer & Visitor Centre.

# APPLICATION AND FORMATION OF CLASSES

## COUNTER APPLICATION

New applicants who are not Singapore Citizens or Singapore Permanent Residents are required to register over the counter at any ITE Customer & Visitor Centre. Applicants must produce the following original documents for registration:

- Application form duly completed;
- NRIC/Work Pass or Dependant's Pass; and
- Educational Certificate, Module Certificate, Entrance Test Result Slip (where applicable).

Applicants are to pay the course and examination fees upfront at the point of registration. Fees may be paid by cheque, credit card, NETS, PSEA or at AXS stations.

For cheque payment, the cheque should be crossed and made payable to "Institute of Technical Education" or "ITE". Applicants are to write their name, NRIC/FIN and contact number at the back of the cheque.

## WEB APPLICATION

New applicants who are Singapore Citizens/Singapore Permanent Residents are encouraged to apply through the Web from any Internet-ready PC during the advertised application periods. Please refer to the section on "Web Application Guide" for details. Applicants may choose to make online payment following their enrolment into modules.

Applicants are not allowed to repeat a module in which they have obtained a pass grade.

## VERIFICATION OF DOCUMENTS

Students who enrolled into an ITE course for the first time over the Web, are required to submit documentary proof of entry qualifications and citizenship during office hours at any ITE Customer & Visitor Centre (CVC) or their College of study for verification during the following periods:

- i) Application period at CVCs; or
- ii) Re-application period at CVCs; or
- iii) Within two weeks after term commencement at the College.

Applicants may be withdrawn from the course, if they are admitted on the basis of any false or inaccurate information. The refund policy will apply for such withdrawal.

## HOTLINE FOR TECHNICAL ASSISTANCE

Should you experience any technical difficulties when applying online:

- You may call our 24-hour IT Help Desk on 6590 2188 and 6872 1188.
- Alternatively, you may report the technical problem by emailing to [ithelpdesk@ite.edu.sg](mailto:ithelpdesk@ite.edu.sg) with your name and contact number.

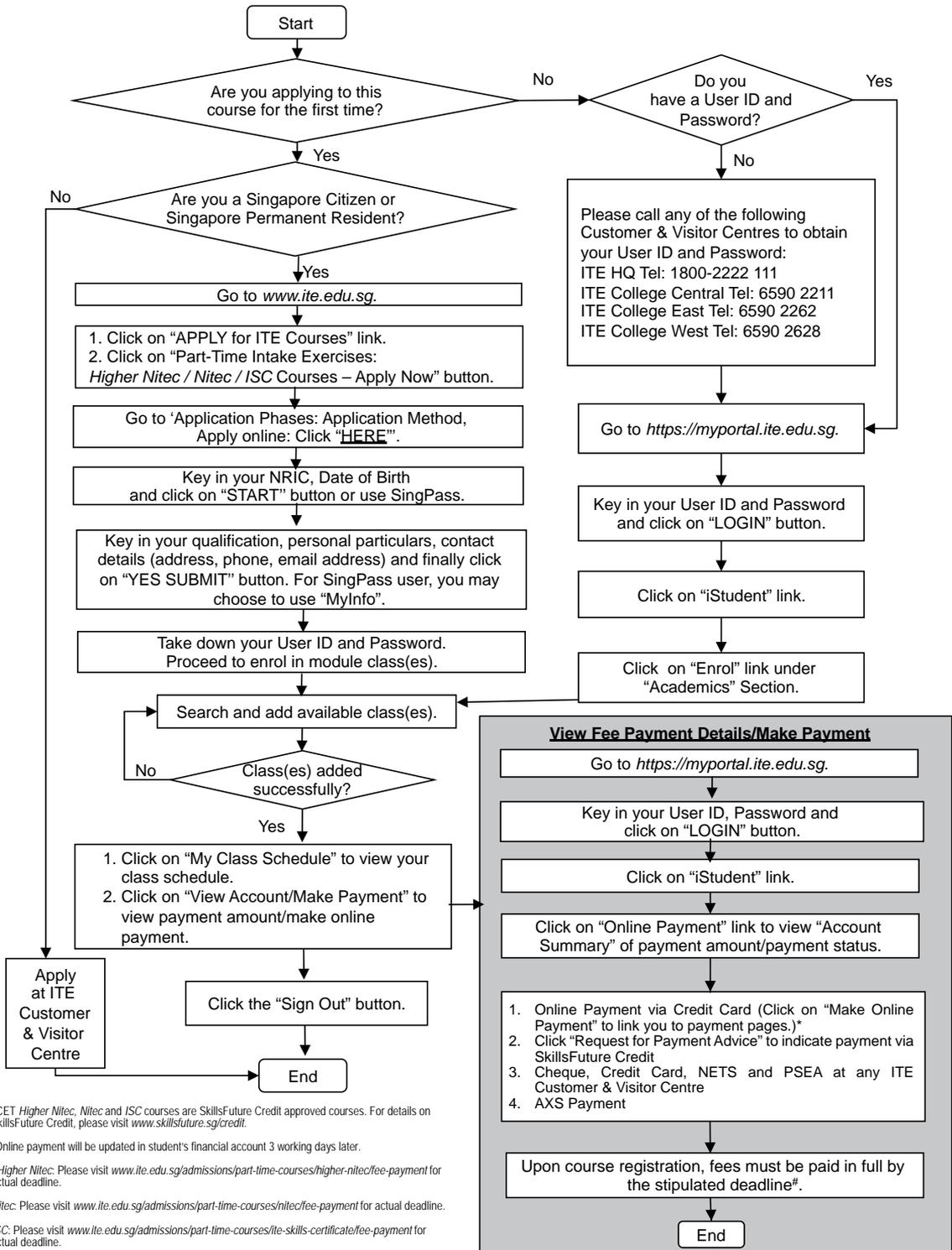
**CUSTOMER SERVICE HOTLINE**

For other forms of assistance, please call our Customer Service Hotline, 1800-2222 111 during office hours (Mon – Fri: 8:30am to 6pm).

**FORMATION OF CLASSES**

ITE may transfer, combine or cancel a class when enrolment is low. Where modules are offered and there is insufficient enrolment, classes may be cancelled and a full refund will be given to the affected students. Please log on to [www.ite.edu.sg](http://www.ite.edu.sg) to check your training schedule a week before the class commencement date.

# WEB APPLICATION GUIDE<sup>^</sup>



<sup>^</sup>CET, Higher Nitec, Nitec and ISC courses are SkillsFuture Credit approved courses. For details on SkillsFuture Credit, please visit [www.skillsfuture.sg/credit](http://www.skillsfuture.sg/credit).

\*Online payment will be updated in student's financial account 3 working days later.

# Higher Nitec: Please visit [www.ite.edu.sg/admissions/part-time-courses/higher-nitec/fee-payment](http://www.ite.edu.sg/admissions/part-time-courses/higher-nitec/fee-payment) for actual deadline.

Nitec: Please visit [www.ite.edu.sg/admissions/part-time-courses/nitec/fee-payment](http://www.ite.edu.sg/admissions/part-time-courses/nitec/fee-payment) for actual deadline.

ISC: Please visit [www.ite.edu.sg/admissions/part-time-courses/ite-skills-certificate/fee-payment](http://www.ite.edu.sg/admissions/part-time-courses/ite-skills-certificate/fee-payment) for actual deadline.

# ENTRY REQUIREMENTS FOR *HIGHER NITEC* IN SERVICES / *HIGHER NITEC* IN TECHNOLOGY COURSES

Course Title	Entry Requirements		
<b>Higher Nitec in Services</b> - Accounting - Event Management - Human Resource & Administration - International Logistics - Maritime Business	3 GCE 'O' Level Grades: Grade 1-7 in English Language Grade 1-8 in Mathematics (Elementary or Additional) or Principles of Accounts Grade 1-7 in one other subject  <i>Applicants must have sat for Mathematics (Elementary or Additional).</i>	OR	<i>Nitec</i> in Services qualifications (excluding <i>Nitec</i> in Services - Digital Animation, Product Design, Space Design, Visual Communication)
<b>Higher Nitec in Services</b> - Hospitality Operations	3 GCE 'O' Level Grades: Grade 1-7 in English Language Grade 1-7 in two other subjects  <i>Applicants must have sat for Mathematics (Elementary or Additional).</i>		
<b>Higher Nitec in Services</b> - Interactive Design <sup>①</sup>	3 GCE 'O' Level Grades: Grade 1-8 in English Language Grade 1-7 in Mathematics (Elementary or Additional) or Principles of Accounts; and Grade 1-8 in one other subject  <i>Applicants must have sat for Mathematics (Elementary or Additional).</i>	OR	<i>Nitec</i> in Services/Technology qualifications  <i>Nitec</i> qualifications
<b>Higher Nitec in Services</b> - Performance Production <sup>①③</sup>	3 GCE 'O' Level Grades: Grade 1-7 in English Language Grade 1-8 in Mathematics (Elementary or Additional) or Principles of Accounts Grade 1-7 in one other subject  <i>Applicants must have sat for Mathematics (Elementary or Additional).</i>		

Note:

*Nitec* / NTC-2 graduates with at least a grade 'B' can apply for exemption of modules in the relevant *Higher Nitec* course. You may obtain the application form for module exemption and submit the completed form together with a copy of your *Nitec* or NTC-2 certificate and final transcript, to the College offering your choice of course.

- ① Applicant applying for these courses must be free from colour appreciation deficiency.
- ② Applicant must be free from colour appreciation deficiency and criminal record.
- ③ Applicant will be required to attend an interview and pass a height phobia test for admission.
- ④ Biology / Biotechnology / Chemistry / Combined Science / Engineering Science / Human & Social Biology / Integrated Science / Physical Science / Physics / Science (Chemistry/Biology) / Science (Physics/Biology) / Science (Physics/Chemistry) / Science (Physics/Biology/Chemistry).
- ⑤ Biology / Biotechnology / Chemistry / Combined Science / Computer Studies / Design & Technology / Engineering Science / Fundamentals of Electronics / Human & Social Biology / Integrated Science / Physical Science / Physics / Science (Chemistry/Biology) / Science (Physics/Biology) / Science (Physics/Chemistry) / Science (Physics/Biology/Chemistry).

Course Title	Entry Requirements		
<b>Higher Nitec in Services</b> - Architectural Technology <sup>①</sup>	3 GCE 'O' Level Grades: Grade 1-8 in English Language Grade 1-7 in Mathematics (Elementary or Additional) Grade 1-8 in an approved subject <sup>⑤</sup>	OR	<i>Nitec in Services/Technology qualifications</i>  <i>Nitec qualifications</i>
<b>Higher Nitec in Services</b> - Visual Merchandising <sup>①</sup>	3 GCE 'O' Level Grades: Grade 1-7 in English Language Grade 1-8 in any two subjects  <i>Applicants must have sat for Mathematics (Elementary or Additional).</i>		
<b>Higher Nitec in Technology</b> - Chemical Technology	3 GCE 'O' Level Grades: Grade 1-8 in English Language Grade 1-7 in Mathematics (Elementary or Additional) Grade 1-8 in one of the approved subjects <sup>④</sup>	OR	<i>Nitec in Technology qualifications</i>  <i>Nitec qualifications [technical skills]</i>
<b>Higher Nitec in Technology</b> - Business Information Systems - Civil & Structural Engineering Design - Cyber & Network Security - Electrical Engineering <sup>①</sup> - Electronics Engineering <sup>①</sup> - Facility Management <sup>①</sup> - Games Art & Design - Games Programming & Development - IT Systems & Networks - Marine & Offshore Technology - Mechanical Engineering - Mechatronics Engineering <sup>①</sup> - Robotics & Smart Systems <sup>①</sup> - Security System Integration <sup>②</sup>	3 GCE 'O' Level Grades: Grade 1-8 in English Language Grade 1-7 in Mathematics (Elementary or Additional) Grade 1-8 in one of the approved subjects <sup>⑤</sup>		
<b>Higher Nitec in Technology</b> - Automotive Engineering <sup>①</sup>	Not Applicable		

Note:

*Nitec* / NTC-2 graduates with at least a grade 'B' can apply for exemption of modules in the relevant *Higher Nitec* course. You may obtain the application form for module exemption and submit the completed form together with a copy of your *Nitec* or NTC-2 certificate and final transcript, to the College offering your choice of course.

- ① Applicant applying for these courses must be free from colour appreciation deficiency.
- ② Applicant must be free from colour appreciation deficiency and criminal record.
- ③ Applicant will be required to attend an interview and pass a height phobia test for admission.
- ④ Biology / Biotechnology / Chemistry / Combined Science / Engineering Science / Human & Social Biology / Integrated Science / Physical Science / Physics / Science (Chemistry/Biology) / Science (Physics/Biology) / Science (Physics/Chemistry) / Science (Physics/Biology/Chemistry).
- ⑤ Biology / Biotechnology / Chemistry / Combined Science / Computer Studies / Design & Technology / Engineering Science / Fundamentals of Electronics / Human & Social Biology / Integrated Science / Physical Science / Physics / Science (Chemistry/Biology) / Science (Physics/Biology) / Science (Physics/Chemistry) / Science (Physics/Biology/Chemistry).

# ENTRY REQUIREMENTS FOR *NITEC* IN SERVICES / *NITEC* IN TECHNOLOGY / *ISC* COURSES

An applicant would benefit more from the course if he is employed in the relevant trade. The specific entry requirements for each course are given below.

Course Title	Entry Requirements
<b><i>Nitec</i> in Services</b> - Business Administration - Business Services - Visual Communication <sup>②⑤</sup>	- 2 GCE 'O' Level Grades (Grade 1-8) in any two subjects OR - 3 GCE 'N' Level Passes (Grade A-D or Grade 1-5) in English Language and two other subjects OR - Workplace Literacy (WPL) Level 5 in Speaking and Listening, and Level 4 in Reading, Writing and Numeracy
<b><i>Nitec</i> in Services</b> - Interior & Exhibition Design <sup>②⑤</sup>  <b><i>Nitec</i> in Technology</b> - Electrical Technology (Power & Control) <sup>①②</sup>	- 2 GCE 'O' Level Grades (Grade 1–8) in any two subjects OR - 3 GCE 'N' Level Passes (Grade A-D or Grade 1-5) in Mathematics and two other subjects OR - Workplace Literacy & Numeracy (WPLN) Level 5 in Speaking and Listening, and Level 4 in Reading and Numeracy
<b><i>Nitec</i> in Technology</b> - Chemical Process Technology <sup>②</sup> - Aerospace Machining Technology - Electronics, Computer Networking & Communications <sup>①②</sup> - Infocomm Technology - Web Applications	- 2 GCE 'O' Level Grades (Grade 1–8) in any two subjects OR - 3 GCE 'N' Level Passes (Grade A-D or Grade 1-5) in Mathematics or Science and two other subjects OR - Workplace Literacy & Numeracy (WPLN) Level 5 in Speaking and Listening, and Level 4 in Reading and Numeracy

① Please refer to respective course information page for relevant *ISC* certificates for progression.

② Applicant must be free from colour appreciation deficiency.

③ Applicant must be free from colour appreciation deficiency and criminal record.

④ Applicant must attend an interview for admission.

⑤ Applicant will be required to attend an interview and pass a drawing test for admission.

Course Title	Entry Requirements
<p><b>Nitec in Services</b></p> <ul style="list-style-type: none"> <li>- Beauty &amp; Wellness<sup>①④</sup></li> <li>- Digital Animation<sup>②⑤</sup></li> <li>- Retail Services</li> </ul> <p><b>Nitec in Technology</b></p> <ul style="list-style-type: none"> <li>- Mechatronics &amp; Robotics<sup>①②</sup></li> <li>- Security Technology<sup>③</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Completed GCE 'O' Level OR</li> <li>- Completed GCE 'N' Level OR</li> <li>- Workplace Literacy &amp; Numeracy (WPLN) Level 5 in Speaking and Listening, and Level 4 in Reading and Numeracy</li> </ul>
<p><b>Nitec in Technology</b></p> <ul style="list-style-type: none"> <li>- Automotive Technology (Heavy Vehicles)<sup>①</sup></li> <li>- Automotive Technology (Light Vehicles)<sup>①</sup></li> <li>- Built Environment (Mechanical &amp; Electrical Services)<sup>①②</sup></li> <li>- Built Environment (Vertical Transportation)<sup>①②</sup></li> <li>- Mechanical Technology<sup>①</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Completed GCE 'O' Level OR</li> <li>- Completed GCE 'N' Level OR</li> <li>- Passed BEST Module 4 Mathematics (for those with work experience) OR</li> <li>- Accumulated at least 60 hours of structured On-the-Job Training under the Certified On-the-Job Training Centre (COJT) system. The OJT must be relevant to the course applied for OR</li> <li>- Workplace Literacy &amp; Numeracy (WPLN) Level 5 in Speaking and Listening, and Level 4 in Reading and Numeracy</li> </ul>
<p><b>ISC</b></p> <ul style="list-style-type: none"> <li>- Electrical Wiring<sup>②</sup></li> <li>- Gas Tungsten Arc Welding</li> <li>- Residential Air-Conditioning<sup>②</sup></li> <li>- Residential Plumbing</li> <li>- Shielded Metal Arc Welding</li> </ul>	<ul style="list-style-type: none"> <li>- Completed primary education OR</li> <li>- Passed BEST Module 4 in English or Mathematics OR</li> <li>- Have minimum 1 year of relevant working experience OR</li> <li>- Workplace Literacy (WPL) Level 4 in Reading and Listening OR</li> <li>- Workplace Numeracy (WPN) Level 4 in Numeracy</li> </ul>

① Please refer to respective course information page for relevant *ISC* certificates for progression.

② Applicant must be free from colour appreciation deficiency.

③ Applicant must be free from colour appreciation deficiency and criminal record.

④ Applicant must attend an interview for admission.

⑤ Applicant will be required to attend an interview and pass a drawing test for admission.

## FEES

All applicants are to pay the total fees (inclusive of 7% GST) upfront at the point of registration.

Singapore Citizens and Singapore Permanent Residents who repeat a module will need to pay the full fees for a repeat module. This applies to Singapore Citizen and Singapore Permanent Resident students who withdraw from a module from the commencement of the term or fail a module.

### TOTAL FEES PAYABLE PER MODULE (WITH EFFECT FROM 1 APR 2020 TERM)

Fees	Singapore Citizen (SC)	Singapore Permanent Resident (SPR)	SC/SPR Repeat Learner*	Others
<b>Higher Nitec:</b>				
Full Course Fee (a)	\$1,229.91	\$1,229.91	\$1,229.91	\$1,229.91
Examination Fee (b)	\$28.04	\$28.04	\$28.04	\$28.04
SkillsFuture Funding (c)	\$1,192.53	\$824.30	NA	NA
Nett Fee after SkillsFuture Funding (d) = (a) + (b) - (c)	\$65.42	\$433.65	\$1,257.95	\$1,257.95
7% GST on Nett Fees (e)	\$4.58	\$30.35	\$88.05	\$88.05
<b>Fee Payable to ITE (d) + (e)</b>	<b>\$70.00</b>	<b>\$464.00</b>	<b>\$1,346.00</b>	<b>\$1,346.00</b>
<b>Nitec:</b>				
Full Course Fee (a)	\$1,180.37	\$1,180.37	\$1,180.37	\$1,180.37
Examination Fee (b)	\$28.04	\$28.04	\$28.04	\$28.04
SkillsFuture Funding (c)	\$1,145.79	\$791.59	NA	NA
Nett Fee after SkillsFuture Funding (d) = (a) + (b) - (c)	\$62.62	\$416.82	\$1,208.41	\$1,208.41
7% GST on Nett Fees (e)	\$4.38	\$29.18	\$84.59	\$84.59
<b>Fee Payable to ITE (d) + (e)</b>	<b>\$67.00</b>	<b>\$446.00</b>	<b>\$1,293.00</b>	<b>\$1,293.00</b>
<b>ISC:</b>				
Full Course Fee (a)	\$1,168.22	\$1,168.22	\$1,168.22	\$1,168.22
Examination Fee (b)	\$27.10	\$27.10	\$27.10	\$28.04
SkillsFuture Funding (c)	\$1,133.64	\$782.24	NA	NA
Nett Fee after SkillsFuture Funding (d) = (a) + (b) - (c)	\$61.68	\$413.08	\$1,195.32	\$1,196.26
7% GST on Nett Fees (e)	\$4.32	\$28.92	\$83.68	\$83.74
<b>Fee Payable to ITE (d) + (e)</b>	<b>\$66.00</b>	<b>\$442.00</b>	<b>\$1,279.00</b>	<b>\$1,280.00</b>

\* Student who has completed the module before.

#### Notes:

- 1) Fees are subject to revision.
- 2) Fees are charged based on Citizenship at the point of term commencement. Students who have officially informed ITE of their Citizenship change to SC or SPR before the term commencement, will have their fees adjusted to the SC / SPR rate for that term. However, for students who inform ITE officially of their Citizenship change to SC or SPR after the term commencement, their fees will be adjusted to the SC / SPR rate only with effect from the next term.
- 3) Students who are not eligible for SkillsFuture Singapore (SSG) / Workforce Singapore (WSG) funding need to pay full course fees.
- 4) Applicants whose PSEA payments were unsuccessful (e.g. due to insufficient funds at the point of deduction by MOE or the PSEA balance had been transferred to the CPF account) have to pay the outstanding fees via other modes of payment.

## **PAYMENT OF FEES**

Students who have successfully registered in a course of study in ITE, will be issued a User ID and Password. You may view the fees payable immediately after enrolling into class(es) by clicking on the 'View Account/Make Payment link'. You may also access the online ITE Student Portal at <https://myportal.ite.edu.sg> on the next working day with the User ID and Password, to view the fees payable. Please refer to the flowchart on page 28 for the procedure on how to access your Financial Accounts through the ITE Student Portal.

You may pay the fees through the following modes:

- (i) Post Secondary Education Account (PSEA)
- (ii) Online Payment (for Credit Card)
- (iii) SkillsFuture Credit (for Singaporeans aged 25 and above) [please refer to the section on "Applicants Using SkillsFuture Credit" for details]
- (iv) Cheque, Credit Card and NETS payment at ITE Customer & Visitor Centre (fees to be paid in full upfront)
- (v) AXS Payment

### **(i) PAYMENT BY PSEA**

Upon web enrolment, you need to submit the "Ad Hoc Application for the Use of PSEA" Form to any ITE Customer & Visitor Centre within 3 days from course registration date. Please visit the MOE website at [www.moe.gov.sg/education/post-secondary/post-secondary-education-account](http://www.moe.gov.sg/education/post-secondary/post-secondary-education-account) for more information on PSEA and to download the Ad Hoc PSEA Form.

### **(ii) ONLINE PAYMENT**

Upon online course registration, you have to make online payment within 3 days from course registration date. If you do not make full payment by the stipulated deadline, you are deemed to have withdrawn from the module(s) that you have registered for. Your training place will then be offered to other applicants.

If you have made online payment, your payment record will be updated in your Financial Account 3 working days later.

### **(iii) APPLICANTS USING SKILLSFUTURE CREDIT**

Part-time *Higher Nitec*, *Nitec* and *ISC* courses are SkillsFuture Credit approved courses. You can use your SkillsFuture Credit to pay for Part-time course fees (specifically tuition and examination fees). You may visit [www.skillsfuture.sg/credit](http://www.skillsfuture.sg/credit) for more details on SkillsFuture Credit.

For SkillsFuture Credit payments, please note:

- Upon successful enrolment of a module, please access your SkillsFuture Credit account via [www.skillsfuture.sg/credit](http://www.skillsfuture.sg/credit) to submit your claim to ITE, for using SkillsFuture Credit to pay the course fees.
- Please submit your SFC claim within 3 days after module enrolment.
- If your claim is not received by the required timeline<sup>^</sup> by ITE, you are deemed to have withdrawn from the enrolled module.
- If the available credit in your SkillsFuture Credit account is insufficient to cover the Course and Examination Fees, you will need to pay the balance via the various payment modes before the required timeline by ITE to remain in the enrolled module.

^ The deadline for the submission of the SkillsFuture Credit claim is indicated on the Payment Advice available over the web upon successful course application. If your SkillsFuture Credit claim is not approved in the SkillsFuture Credit portal ([www.skillsfuture.sg/credit](http://www.skillsfuture.sg/credit)) before the course start date, you will have to pay the full fees by other available payment modes **more than two weeks** before the course start date. If full fees are not paid by then, you will be withdrawn from the course.

#### **(iv) CHEQUE, CREDIT CARD AND NETS PAYMENT AT ITE CUSTOMER & VISITOR CENTRES**

Upon course registration, you have to pay the fees in full upfront.

If you wish to enrol for modules with vacancies after the official registration period, please call our Customer Service Hotline on 1800-2222 111 or enquire at any ITE Customer & Visitor Centre.

To check whether ITE has received your payment, please access the online ITE Student Portal to view your Financial Account status.

#### **(v) AXS PAYMENT**

You can make an e-payment for your CET course fees at an AXS station. This mode of payment is not applicable for companies paying the fees of their sponsored students. Students who wish to check or make payment on outstanding balances at an AXS machine can only do so the next day after 10am following their enrolment into a course. You will need to retain the receipt as proof of payment. For assistance, you may call AXS hotline on 65602727 (8am to 10pm daily).

#### **WITHDRAWAL FROM MODULE(S) AND REFUND**

Withdrawal from the modules is not encouraged. Students who wish to withdraw from the module(s) they have registered in, may submit their application for withdrawal over the counter at any Customer & Visitor Centre or to the College they have enrolled in.

The amount of fees refundable is based on the date of application for refund as follows:

<b>Application for Refund</b>	<b>Remarks</b>
If application for refund is received 2 weeks or more before the start of course	100% refund of fees
If application for refund is received less than 2 weeks before the start of course	50% refund of fees
If application for refund is received after start of course	No refund

Refund is not an automatic process. Applicant must apply for refund before ITE will process the request. All requests for refund are not guaranteed and are subject to approval by ITE. For refund via PayNow, please register with your bank and link your NRIC number to your receiving bank account. For details on how to link your NRIC to your bank account to receive refund by PayNow, please check directly with your bank.

For students who had used SkillsFuture Credit for partial/whole payment of CET course fees earlier, please note that SkillsFuture Credit is not recognised for fee payment/refund purpose arising from course withdrawal on or before course start date. Depending on the course withdrawal date, and the proportion of fees paid using SkillsFuture Credit, the applicant may have to pay fees arising from the course withdrawal.

# TRAINING SUPPORT

## MOE BURSARY SCHEME

The Ministry of Education (MOE) offers a Bursary Scheme for Singapore Citizens pursuing *Nitec* in Services/Technology and *Higher Nitec* in Services/Technology courses at ITE.

With effect from April 2018, the annual MOE Bursary quantum is \$140. To be eligible for the bursary, adult learners:

- Must be Singapore Citizens who are pursuing *Nitec* in Services/Technology and *Higher Nitec* in Services/Technology modules at ITE and paying subsidised fees;
- Should have a gross monthly household income (GHI)<sup>1</sup> of ≤ \$9,000 or a gross monthly household per capita income (PCI)<sup>2</sup> of ≤ \$2,250;
- Must not have been awarded the MOE Bursary for the past year; and
- Must not concurrently hold full scholarship, but may concurrently hold partial scholarships and bursaries. A scholarship with annual and other allowance (excluding course fees payment) of more than \$5,000 a year will be deemed as a full scholarship.

*Nitec* in Services/Technology and *Higher Nitec* in Services/Technology adult learners may apply for the MOE Bursary within a month from the commencement of course for each intake through the College of study. The bursary application form can be obtained from the College.

Adult learners who are successful in their applications will be given the bursary through their bank accounts via GIRO.

<sup>1</sup> The GHI refers to the total gross monthly household income of immediate and non-immediate family members.

**For unmarried students,**

- (i) Immediate family members include parents who may or may not be living together with the student.
- (ii) Non-immediate family members include grandparents, siblings, spouses of siblings, siblings of parents, and any other relatives who are living together with the student.

**For married/divorced/separated students,**

- (iii) Immediate family members include spouse and all children who may or may not be living together with the student
- (iv) Non-immediate family members include parents, grandparents, siblings, spouses of siblings, siblings of parents, and any other relatives who are living together with the student.
- (v) Income = gross income contributions from self-employment, business or salaried employment (which includes basic salary, allowances, employee's CPF contribution, overtime pay, etc.) as well as other sources of income (e.g. rent, alimony or maintenance allowance). Bonuses declared should be one twelfth of the annual wage supplements and bonuses received in the last 12 months. Payments-in-kind, reimbursement for transport and other expenses and National Service (NS) allowance earned by NS men are excluded.

<sup>2</sup> PCI is computed based on total GHI divided by the number of immediate family members, and non-immediate family members living in the same household.

## ABSENTEE PAYROLL FUNDING FOR EMPLOYERS

The absentee payroll funding is funded by the SkillsFuture Singapore with the objective of defraying the manpower costs incurred by employers when they send their workers for training. To apply for absentee payroll funding, please go to [www.skillsconnect.gov.sg](http://www.skillsconnect.gov.sg).

## SKILLSFUTURE STUDY AWARDS

The SkillsFuture Study Awards encourage Singaporeans to develop and deepen specialist skills needed by future economic growth sectors or in areas of demand. It also supports Singaporeans who already have deep specialist skills to develop other competencies. Successful applicants will receive a monetary award of S\$5,000.

Selected *Higher Nitec* and *Nitec* courses are recognised as supported courses for SkillsFuture Study Awards in the sectors listed below.

### **SkillsFuture Study Award for Power Sector**

Supported courses are:

*Higher Nitec* in Technology - Electrical Engineering

*Higher Nitec* in Technology - Mechanical Engineering

*Higher Nitec* in Technology - Mechatronics Engineering

Singapore Citizens who have not completed more than 50% of the course at the point of application may be eligible to apply for the SkillsFuture Study Awards for Power Sector.

The following awards also apply to selected ITE courses as determined by the agency administering the award:

**SkillsFuture Study Award for Attractions Sector**

**SkillsFuture Study Award for Hotel Sector**

**SkillsFuture Study Award for MICE Sector**

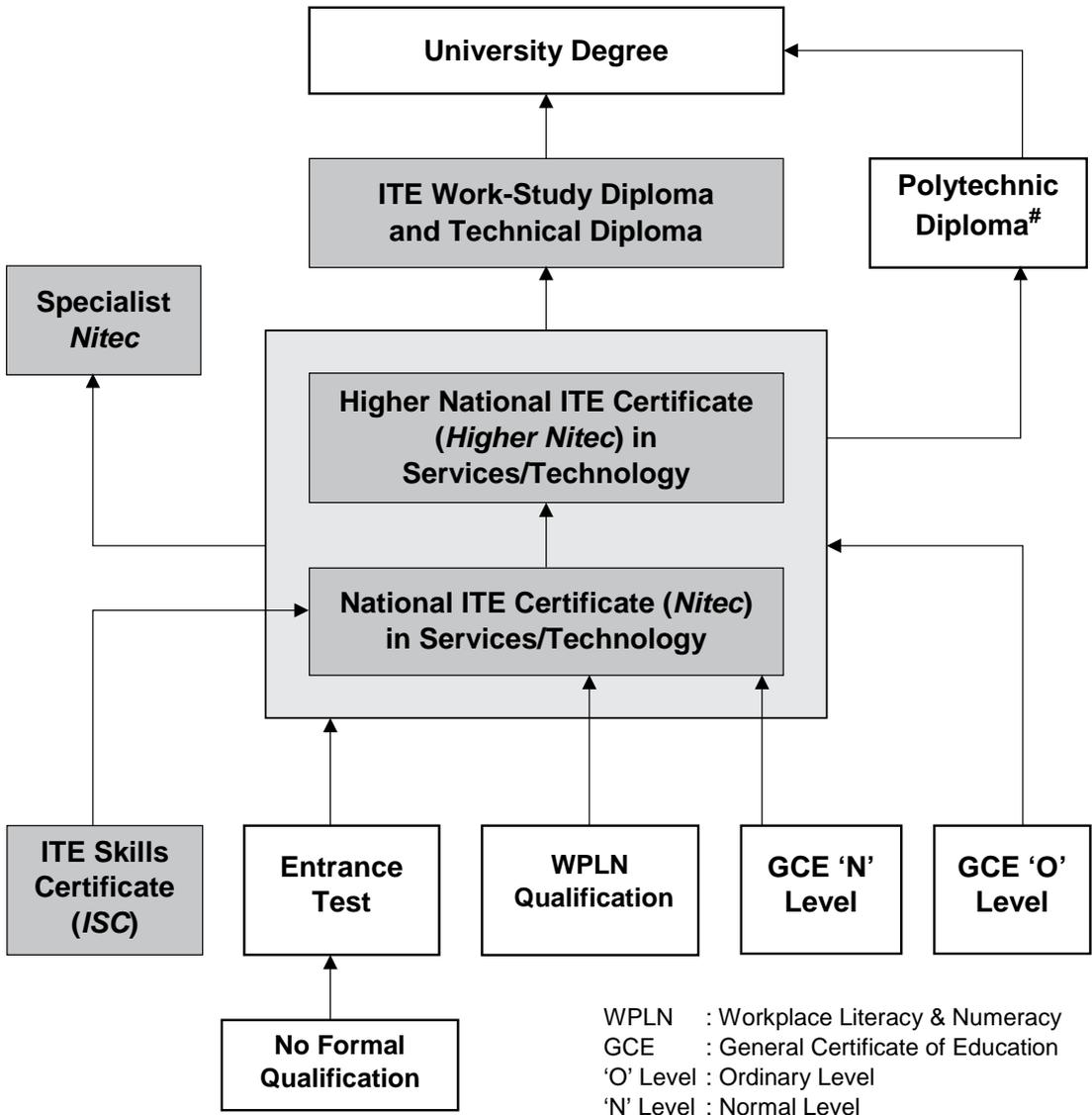
**SkillsFuture Study Award for Tourist Guide Sector**

**SkillsFuture Study Award for Travel Agent Sector**

Please visit <https://www.skillsfuture.sg/studyawards> for eligibility criteria of respective awards and application details.

## PROGRESSION OPPORTUNITIES FOR CET GRADUATES

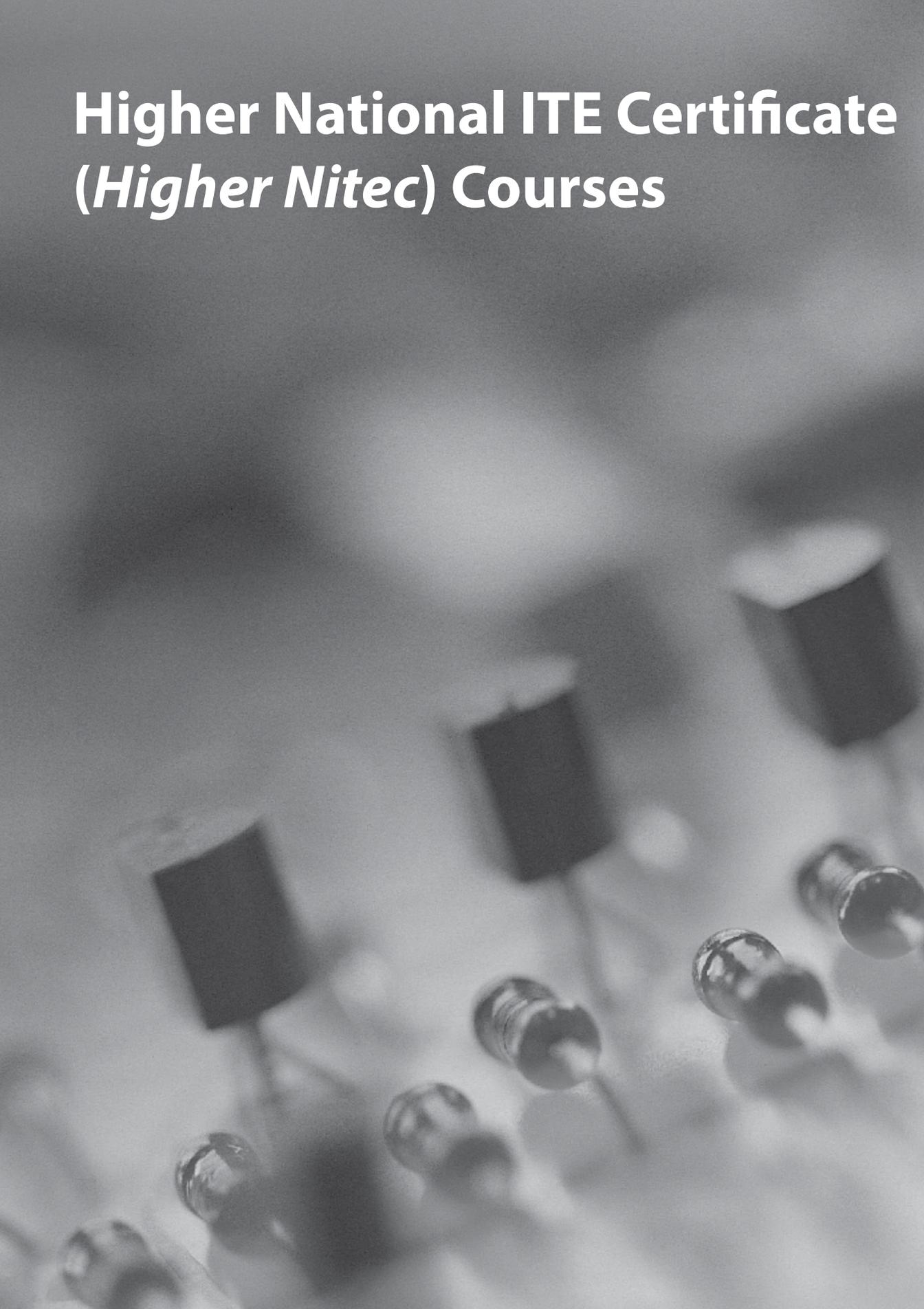
ITE CET graduates who excel in their course of study may apply for progression\* to a higher level course.



\* Progression is based on merit.

# Relevant work experience is required.

# Higher National ITE Certificate (*Higher Nitec*) Courses



# HIGHER NITEC IN SERVICES – ACCOUNTING

Course Code: HSACN

## COURSE OBJECTIVE

This course provides students with the skills and knowledge in accounting and related areas for work in the commercial, industrial and public sectors of the job market.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Essential Communication and IT</b> 90 hrs (T) 30 hrs (P) Credits: 5 Prerequisite: Nil	BS4007FPR	On completion of the module, students should be able to apply the communication skills to build successful working relationships in workplace settings and to produce documents using appropriate software applications.
		Equivalent Code OA4012PA	
C2	<b>Accounting Fundamentals</b> 90 hrs (T) 30 hrs (P) Credits: 6 Prerequisite: Nil	AC4003FP	On completion of the module, students should be able to record business transactions, prepare bank reconciliation statements, control accounts, Statement of Comprehensive Income and Statement of Financial Position.
		Equivalent Codes OA4010PA AC4003PA AC4001FP AC4001FPR	
C3	<b>Intermediate Accounting</b> 80 hrs (T) 40 hrs (P) Credits: 6 Prerequisite: Advised to complete AC4003FP	AC4004FP	On completion of the module, students should be able to compute the depreciation of fixed assets, determine the value of stock using various methods of valuation, correct various types of errors through journal entries, and prepare adjusted final accounts for sole proprietorships and non-trading organisations.
		Equivalent Codes AC4004PA AC4002FP AC4002FPR	
C4	<b>Advanced Accounting</b> 80 hrs (T) 40 hrs (P) Credits: 7 Prerequisite: Advised to complete AC4003FP & AC4004FP	AC5005FP	On completion of the module, students should be able to apply knowledge on professional ethics in accounting professions, prepare financial statements for partnerships and limited companies. In addition, students will also learn to prepare cash-flow statements and cash budgets, and to use and maintain a computerised accounting system.
		Equivalent Codes AC5007PA AC5001FP AC5001FPR	
C5	<b>Costing</b> 80 hrs (T) 40 hrs (P) Credits: 5 Prerequisite: Advised to complete AC4003FP & AC4004FP	AC5006FP	On completion of the module, students should be able to apply costing principles and methods to ascertain the costs of labour, materials and overheads for a job process or service.
		Equivalent Codes AC5006PA AC5002FP AC5002FPR	

Abbreviations: T - Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 29 credits from successful completion of 5 modules.

**VENUE**

ITE College Central, ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – ARCHITECTURAL TECHNOLOGY

Course Code: HSATG

## COURSE OBJECTIVE

This course provides students with the skills and technical knowledge to develop architectural design project to ensure compliance with industry standards, codes and regulations through the use of appropriate technology, to facilitate efficient flow of information within an organisation.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Architectural Drawing</b> 12 hrs (T) 108 hrs (P) Credits: 6 Prerequisite: Nil	DM4017FP	On completion of the module, students should be able to apply concepts of spatial composition and knowledge of architectural drawing techniques and conventions to produce architectural sketches, perspectives and architectural building drawings for further design development.
		Equivalent Codes SD4001FP SD4001FPR SD4005FPR SD4009FP	
C2	<b>Architectural Modelling</b> 12 hrs (T) 108 hrs (P) Credits: 6 Prerequisite: Nil	DM4018FP	On completion of the module, students should be able to produce a consolidated architectural presentation package complete with project brief, presentation drawings, 3D rendering and animations.
		Equivalent Codes SD4002FP SD4002FPR SD4006FPR SD4010FP	
C3	<b>Architectural Design Process</b> 18 hrs (T) 102 hrs (P) Credits: 7 Prerequisite: Nil	DM4019FP	On completion of the module, students should be able to gather the necessary codes and regulations to be applied when preparing a set of building drawings for submission purposes using relevant computer software. Students should also be able to apply the knowledge of architectural schedules and detail elements to prepare a set of working drawings for construction purposes.
		Equivalent Codes SD4003FP SD4003FPR SD4007FPR	
C4	<b>Architectural Construction Technology</b> 18 hrs (T) 102 hrs (P) Credits: 7 Prerequisite: Advised to complete DM4018FP & DM4019FP	DM4020FP	On completion of the module, students should be able to produce a set of submission drawings and perform Buildability Score calculations. They should also be able to produce complete sets of architectural tender and construction drawing packages incorporating all required drawings, details, technical specifications and documentation necessary for calling of tender and construction of buildings on site respectively.
		Equivalent Codes SD4004FP SD4004FPR SD4008FPR	
C5	<b>Architectural BIM Design</b> 12 hrs (T) 108 hrs (P) Credits: 7 Prerequisite: Advised to complete DM4018FP & DM4019FP	DM5018FP	On completion of the module, students should be able to integrate building services and structural systems with the architectural design using BIM modelling. They should be able to perform multi-disciplinary coordination and clash detection through usage of BIM software.
		Equivalent Codes SD5001FP SD5001FPR SD5004FP	

Abbreviations: T – Theory, P – Practical

## **CREDITS FOR CERTIFICATION**

Total of 33 credits from successful completion of 5 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – EVENT MANAGEMENT

Course Code: HSEVM

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to conceptualising, planning and executing events for the “Meetings, Incentives, Conventions and Exhibitions” (MICE) and Events industry.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Essential Communication and IT</b> 90 hrs (T) 30 hrs (P) Credits: 5 Prerequisite: Nil	BS4007FPR	On completion of the module, students should be able to apply the communication skills to build successful working relationships in the workplace settings and to produce documents using appropriate software applications.
		Equivalent Code OA4012PA	
C2	<b>Event Planning and Management</b> 80 hrs (T) 40 hrs (P) Credits: 5 Prerequisite: Nil	EV5006FP	On completion of the module, students should be able to prepare an event concept, perform detailed planning, handle event set-up, manage onsite activities and manage post-event activities.
		Equivalent Codes EV5001FP EV5001FPR	
C3	<b>Principles of Marketing</b> 40 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	BS4006FPR	On completion of the module, students should be able to understand the basic concepts of marketing mix and apply these concepts at the workplace.
		Equivalent Codes OA5009PA BS4006FP	
C4	<b>Facilities and Venue Management</b> 80 hrs (T) 40 hrs (P) Credits: 5 Prerequisite: Nil	EV5007FP	On completion of the module, students should be able to plan and manage event venue facilities and inventory, procure supplies, handle loan and booking systems, provide advice to customers on set-up of temporary structures, and coordinate AV and lighting requirements.
		Equivalent Codes EV5002FP EV5002FPR	
C5	<b>Meetings, Incentives, Conventions and Exhibitions</b> 80 hrs (T) 40 hrs (P) Credits: 6 Prerequisite: Nil	EV5008FP	On completion of the module, students should be able to differentiate the processes for meetings, incentives, conventions, and exhibitions (MICE), develop business opportunities, market MICE programmes, manage sponsorships, coordinate MICE logistics, perform risk assessments and handle post-MICE event activities.
		Equivalent Codes EV5006PA EV5003FP EV5003FPR	

Abbreviations: T – Theory, P - Practical

## CREDITS FOR CERTIFICATION

Total of 26 credits from successful completion of 5 modules.

**VENUE**

ITE College Central, ITE College East

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – HOSPITALITY OPERATIONS

Course Code: HSHSO

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to perform a range of operational functions within an accommodation establishment by providing service at the front office and executive lounge, maintaining rooms and managing events to meet the needs of guests for a comfortable and enjoyable stay.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Hospitality Service and Communication</b> 80 hrs (T) 40 hrs (P) Credits: 7 Prerequisite: Nil	TS4020FP	On completion of the module, students should be able to handle communications required at the workplace at a functional level. They will be able to apply communicative skills (listening, speaking, reading and writing) at workplace. Students will also be able to handle guests' concerns and feedback, manage guests' needs and expectations, and respond to service challenges.
		Equivalent Code TS4006FP	
C2	<b>Executive Lounge Operations</b> 40 hrs (T) 80 hrs (P) Credits: 7 Prerequisite: Nil	TS4022FP	On completion of the module, students should be able to prepare the executive lounge for service and manage inventory. They should also be able to prepare drinks, coffee and tea, serve wine, process guest orders and provide butler service.
		Equivalent Code TS4008FP	
C3	<b>Front Office Operations</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	TS5015FP	On completion of the module, students should be able to handle the arrival and departure of guests, perform cashiering and provide concierge services.
		Equivalent Codes TS40020 TS50050 TS40060 TS5004FP	
C4	<b>Hospitality IT Systems</b> 40 hrs (T) 80 hrs (P) Credits: 6 Prerequisite: Nil	TS5016FP	On completion of the module, students should be able to use a computerised property management system to process reservations, manage guest folios, handle financial transactions and manage guest records. They should also be able to use word processing and spreadsheet to develop reports, worksheets and charts.
		Equivalent Code TS5005FP	
C5	<b>Housekeeping Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	TS5017FP	On completion of the module, students should be able to handle housekeeping requests, prepare rooms for guests and process laundry and linen items. They should also be able to assess and respond to housekeeping emergencies and security breaches.
		Equivalent Codes TS40050 TS50010 TS50100 TS5006FP	

Abbreviations: T - Theory, P - Practical

**CREDITS FOR CERTIFICATION**

Total of 32 credits from successful completion of 5 modules.

**VENUE**

ITE College West

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – HUMAN RESOURCE & ADMINISTRATION

Course Code: HSHRA

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to support a range of human resource administrative functions in an establishment. It covers topics in recruitment, on-boarding and off-boarding, training administration, processing claims and employee relations and communication.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Essential Communication and IT</b> 90 hrs (T) 30 hrs (P) Credits: 5 Prerequisite: Nil	BS4007FPR	On completion of the module, students should be able to communicate effectively and handle communication required in a business/workplace environment as well as in social and cross cultural settings. In addition, they should be able to produce, format and organise business documents and spreadsheets using commonly used software packages.
		Equivalent Code OA4012PA	
C2	<b>Recruitment and Selection</b> 40 hrs (T) 50 hrs (P) Credits: 5 Prerequisite: Nil	HR5001FPR	On completion of the module, students should be able to provide support in recruitment, selection, pre-boarding, on-boarding and off-boarding activities.
		Equivalent Code Nil	
C3	<b>Human Resource Information and Administration</b> 40 hrs (T) 50 hrs (P) Credits: 5 Prerequisite: Nil	HR5002FPR	On completion of the module, students should be able to process and set up new hire's forms, process employee claims and payroll and update the Human Resource Information System (HRIS).
		Equivalent Code Nil	
C4	<b>Training Administration</b> 40 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	HR5003FPR	On completion of the module, students should be able to support the training administrative function in an organisation, providing logistics support, processing training claims and maintain training records and the training calendar.
		Equivalent Code Nil	
C5	<b>Employee Relations and Communication</b> 40 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	HR5004FPR	On completion of the module, students should be able to attend to basic employee queries and coordinate a range of staff-related programmes such as employee recognition and employee well-being programmes as well as employee benefits. Students should also be able to handle a range of associated administrative tasks.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

**CREDITS FOR CERTIFICATION**

Total of 25 credits from successful completion of 5 modules.

**VENUE**

ITE College Central, ITE College East

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – INTERACTIVE DESIGN

Course Code: HSIDN / Plan Code: HSIDN

## COURSE OBJECTIVE

This course provides students with skills and knowledge to create engaging web experiences, exposing students to user experience design for digital marketing and the development of responsive websites.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Digital Photography and Imaging</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	DM4022FP	On completion of the module, students should be able to acquire and manipulate digital images for various outputs; print and web platforms.
		Equivalent Code DM4006FP	
C2	<b>Web Design and Development</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Advised to complete DM4007FP	DM4023FP	On completion of the module, students should be able to design website mock-ups and apply the fundamentals of web development using Hypertext Mark-Up Language (HTML) and Cascading Style Sheets (CSS).
		Equivalent Code DM5006FP	
C3	<b>Digital Content Creation</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	DM4024FP	On completion of the module, students should be able to integrate digital media such as audio and video elements, animation and other media formats for various media platforms.
		Equivalent Code DM4008FP	
C4	<b>Content Management System Essentials</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	DM5021FP	On completion of the module, students should be able to create, manage, and publish dynamic web content using Content Management System (CMS).
		Equivalent Code Nil	
C5	<b>Responsive Web Design</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Advised to complete DM4007FP	DM5022FP	On completion of the module, students should be able to develop and deploy responsive interactive mobile web applications through the use of server side scripting with database integration.
		Equivalent Code DM5008FP	
C6	<b>User Experience Design Essentials</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	DM5023FP	On completion of the module, students should be able to create interfaces with a focus on enhancing user satisfaction by improving the usability and accessibility.
		Equivalent Code DM4007FP	

Abbreviations: T – Theory, P – Practical

## **CREDITS FOR CERTIFICATION**

Total of 42 credits from successful completion of 6 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – INTERNATIONAL LOGISTICS

Course Code: HSILO

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to co-ordinate the movement of goods, both imports and exports. It covers topics in the concept of logistics, warehousing, inventory, freight, and distribution techniques.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Essential Communication and IT</b> 90 hrs (T) 30 hrs (P) Credits: 5 Prerequisite: Nil	BS4007FPR	On completion of the module, students should be able to communicate effectively and handle communication required in a business/workplace environment as well as in social and cross cultural settings. In addition, they should be able to produce, format and organise business documents and spreadsheets using commonly used software packages.
		Equivalent Code OA4012PA	
C2	<b>Warehousing and Distribution</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite: Nil	LG4005FP	On completion of the module, students should be able to perform the various transactions and activities in a typical warehouse and distribution centre environment. Students will also be equipped with skills in inventory control & management, measurement of warehouse performance, Workplace Safety & Health Practices, Risk Assessment and security issues in warehouse and distribution centre.
		Equivalent Codes LG4003FPR LG4003FP LG4006PA	
C3	<b>Freight Forwarding</b> 80 hrs (T) 40 hrs (P) Credits: 5 Prerequisite: Nil	LG4006FP	On completion of the module, students should be equipped with skills and knowledge to arrange transport of goods from one location to another in the most suitable and economical method. They should be able to complete the required documentation in compliance with national and international requirements.
		Equivalent Codes LG4001FPR LG4001FP LG4005PA	
C4	<b>Transport Logistics</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite : Nil	LG5003FP	On completion of the module, students should be equipped with skills and knowledge to select appropriate modes of transport and accompanying requirements for safe, timely transportation and border clearance in a multi-modal environment.
		Equivalent Codes LG5001FPR LG5001FP	
C5	<b>Material Planning and Inventory Management</b> 80 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	LG5004FP	On completion of the module, students should be equipped with skills and knowledge to maintain manual or computerised records of material and inventory plan. Students should be able to review the material plan, its schedules and related information from the records and to explain the various aspects of inventory control and management.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

**CREDITS FOR CERTIFICATION**

Total of 25 credits from successful completion of 5 modules.

**VENUE**

ITE College East

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – MARITIME BUSINESS

Course Code: HSMBS

## COURSE OBJECTIVE

This course provides students with the skills and knowledge in maritime cargo transportation. It covers topics in ship and port operations, cargo and ship management and coordination with various maritime stakeholders such as port authorities, ship owners and charterers, shipping agencies, logistics providers and suppliers.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Essential Communication and IT</b> 90 hrs (T) 30 hrs (P) Credits: 5 Prerequisite: Nil	BS4007FPR	On completion of the module, students should be able to communicate effectively and handle communication required in a business/workplace environment as well as in social and cross cultural settings. In addition, they should be able to produce, format and organise business documents and spreadsheets using commonly used software packages.
		Equivalent Code OA4012PA	
C2	<b>Introduction to Maritime Industry</b> 60 hrs (T) 30 hrs (P) Credits: 5 Prerequisite: Nil	SH4001FP	On completion of the module, students should have a foundational understanding of the maritime industry in terms of maritime geography, ships and cargo, maritime terminology, careers and challenges facing the industry.
		Equivalent Code Nil	
C3	<b>Shipping and Port Operations</b> 80 hrs (T) 40 hrs (P) Credits: 5 Prerequisite: Nil	SH5006FP	On completion of the module, students should be able to support key shipping and port operations activities. They would also be introduced to the concepts of maritime cargo transportation and equipped with an understanding of the trends and challenges facing the industry.
		Equivalent Code Nil	
C4	<b>Shipping Documentation</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite: Nil	SH5007FP	On completion of the module, students should be able to identify and apply for the different types of documents related to cargo movement. Students would also be equipped with the skills and knowledge to assist customers in cargo shipment.
		Equivalent Code Nil	
C5	<b>Ship Agency and Operations</b> 80 hrs (T) 40 hrs (P) Credits: 6 Prerequisite: Nil	SH5008FP	On completion of the module, students should be able to support a ship manager/agent in the management of maritime commercial vessels. Students would also be equipped with the knowledge and skills to carry out ship agency functions relating to vessel operations, management, and cargo shipment.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

**CREDITS FOR CERTIFICATION**

Total of 26 credits from successful completion of 5 modules.

**VENUE**

ITE College Central

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – PERFORMANCE PRODUCTION

Course Code: HSPPZ

## COURSE OBJECTIVE

This course provides students with the skills and technical knowledge to interpret production documents as well as to manage performance production resources. They will be able to set up and operate production equipment and systems (lighting, sound, multimedia and staging), coordinate production elements and sets to ensure efficient and smooth running of a production.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Lighting for Production I</b> 18 hrs (T) 102 hrs (P) Credits: 6 Prerequisite: Nil	PF4002FP	On completion of the module, students should be able to interpret lighting document, set up and operate lighting equipment and systems in accordance with work safety and health requirements and regulations.
		Equivalent Code Nil	
C2	<b>Sound for Production I</b> 18 hrs (T) 102 hrs (P) Credits: 6 Prerequisite: Nil	PF4003FP	On completion of the module, students should be able to interpret sound document, set up and operate sound system and equipment in accordance with work safety and health requirements and regulations.
		Equivalent Code Nil	
C3	<b>Stage Craft and Staging Systems</b> 30 hrs (T) 90 hrs (P) Credits: 8 Prerequisite: Nil	PF4004FP	On completion of the module, students should be able to interpret staging and set documents, set up, test and operate staging systems in accordance with work safety and health requirements and regulations. They should also be able to fabricate the necessary items in line with the creative direction of the performance production.
		Equivalent Code Nil	
C4	<b>Visual Multimedia</b> 30 hrs (T) 90 hrs (P) Credits: 7 Prerequisite: Nil	PF5001FP	On completion of the module, students should be able to set up, test and program visual multimedia equipment in accordance with work safety and health requirements and regulations.
		Equivalent Code Nil	
C5	<b>Lighting for Production II</b> 18 hrs (T) 102 hrs (P) Credits: 7 Prerequisite: Advised to complete PF4002FP	PF5002FP	On completion of the module, students should be able to execute programming of the lighting desk, use lighting software to create lighting effects and documents for a performance production. They should also be able to maintain lighting equipment and system.
		Equivalent Code Nil	
C6	<b>Sound for Production II</b> 18 hrs (T) 102 hrs (P) Credits: 7 Prerequisite: Advised to complete PF4003FP	PF5003FP	On completion of the module, students should be able to mic up for any type of band set up, operate sound console, use sound software to edit and record sound for a performance production. They should also be able to maintain sound equipment and system.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

## **CREDITS FOR CERTIFICATION**

Total of 41 credits from successful completion of 6 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) Applicant will be required to attend an interview and pass a height phobia test for admission.
- 3) The training schedule of lessons is subject to change.
- 4) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN SERVICES – VISUAL MERCHANDISING

Course Code: HSVSM

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to conceptualise, design and implement window and in-store displays.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Arts and Design</b> 15 hrs (T) 105 hrs (P) Credits: 7 Prerequisite: Nil	DM4025FP	On completion of the module, students should be able to apply the fundamental drawing techniques to express their perception of forms using various mediums. They should also be able to apply design elements and principles into compositions that creatively express their ideas.
		Equivalent Codes DM4001PA DM4001FP	
C2	<b>Visual Merchandising Graphics</b> 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Nil	DM4027FP	On completion of the module, students should be able to apply different types of material used and the application of visual graphics to affect consumer's choice. Students should also be able to create and retouch graphics for the production of signage and graphics.
		Equivalent Codes DM4003PA DM4003FP	
C3	<b>Retail Marketing</b> 78 hrs (T) 42 hrs (P) Credits: 7 Prerequisite: Nil	DM4028FP	On completion of the module, students should be able to apply the core principles and practices of marketing in a retail context and to identify the retail marketing mix, consumer buying behaviour, retail trends and strategies.
		Equivalent Codes DM4004PA DM4004FP	
C4	<b>Visual Merchandising Design</b> 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Advised to complete DM4025FP & DM4027FP	DM5025FP	On completion of the module, students should be able to design a product presentation that is cohesive with marketing strategies. Students should also be able to make use of environment, lighting, fixtures and forms to enhance the presentation.
		Equivalent Codes DM5001PA DM5001FP	
C5	<b>Retail Space Design</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Advised to complete DM4025FP & DM4027FP	DM5026FP	On completion of the module, students should be able to apply the knowledge of space design, retail space techniques and principles to reinforce branding and enhance retail experiences.
		Equivalent Codes DM5002PA DM5002FP	
C6	<b>Applied Visual Merchandising</b> 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Advised to complete DM5025FP	DM5027FP	On completion of the module, students should be able to analyse the current presentation practices and techniques, methodology, themes and inherent qualities of varying classifications of merchandise and translate them into studio setups which include propping and showcase display.
		Equivalent Codes DM5003PA DM5003FP	

Abbreviations: T - Theory, P - Practical

## **CREDITS FOR CERTIFICATION**

Total of 39 credits from successful completion of 6 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – AUTOMOTIVE ENGINEERING

Course Code: HTAUE / Plan Code: HTAUE

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to perform a range of progressively responsible tasks involving the service, inspection, repair and diagnosis of systems for petrol, diesel, and alternative powered vehicles. Work ranges from inspection and service to mechanical and electrical systems analysis using diagnostic equipment and related software.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Automotive Mechanics</b> 45 hrs (T) 75 hrs (P) Credits: 6 Prerequisite: Nil	AT4001FP	On completion of the module, students should be able to observe workplace health and safety, extract technical information, select and use lifting equipment and hand tools [to disassemble/reassemble automotive systems and components], perform basic maintenance of chassis and undercarriage as well as transmission system and components, and handle proper disposal of automotive wastes.
		Equivalent Code Nil	
C2	<b>Control and Transmission Technology</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT4002FP	On completion of the module, students should be able to carry out servicing and perform inspection of the brake system, chassis and undercarriage, transmission system and supplemental restraint systems on a vehicle.
		Equivalent Code Nil	
C3	<b>Engine Technology</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT4003FP	On completion of the module, students should be able to perform inspection of the air intake system, fuel system, engine management system, emission control system, and engine mechanical system on a vehicle.
		Equivalent Code Nil	
C4	<b>Automotive Electrics</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT4004FP	On completion of the module, students should be able to interpret diagnostic results and rectify faults in vehicle electrical systems, electronic circuits and air-conditioning system.
		Equivalent Code Nil	
C5	<b>Engine and Electrical Systems Diagnostics</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT5001FP	On completion of the module, students should be able to conduct system fault finding with the use of diagnostic tools and equipment, and rectify faults in engine electrical, body electrical, air-conditioning, fuel, lubrication and cooling, engine mechanical, engine management and emission control systems, as well as service alternative powered vehicle's motor and battery.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
C6	<b>Control and Transmission Diagnostics</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT5002FP	On completion of the module, students should be able to interpret diagnostic results and rectify faults on vehicle wheel alignment, drive-line, suspension and steering, braking and transmission systems on petrol or diesel powered vehicle as well as service alternative powered vehicle's powertrain.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 41 credits from successful completion of 6 modules.

### VENUE

ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – BUSINESS INFORMATION SYSTEMS

Course Code: HTBIZ

## COURSE OBJECTIVE

This course provides students with skills and knowledge to support business information systems on end-user computing devices, network, server and application in a hybrid infrastructure environment with a responsibility in maintaining database management system as well as implementing enterprise solution to ensure smooth operations of all Infocomm hardware and software in the organisation.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Enterprise Networking</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4045FP	On completion of the module, students should be able to apply the fundamentals of computer networking in relation to the OSI model. They should also be able to set up and configure wired and wireless local area network (LAN) including IP address calculation, switching, routing and network segmentation with Virtual LANs (VLANs). In addition, students will be able to set up wide area network (WAN), implement access control lists, troubleshoot common network issues and problems as well as monitor network performance.
		Equivalent Code Nil	
C2	<b>System Administration</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4043FP	On completion of the module, students should be able to install and set up server operating systems and perform system administration tasks such as user management, resource sharing, security management, preventive maintenance, and performance tuning on these systems. Students will then proceed to perform value-added features such as implementing server security and high-availability systems.
		Equivalent Code Nil	
C3	<b>Virtualization</b> 27 hrs (T) 93 hrs (P) Credits: 6 Prerequisite: Nil	IT4044FP	On completion of the module, students should be able to set up a hypervisor with virtual machines (VMs) and configure clients' access to these VMs. They should also be able to perform backup and recovery of VMs, monitor resource utilisation on the hypervisor, troubleshoot performance and connectivity issues as well as assisting in securing the virtualised infrastructure. They will be introduced to commercially available cloud services and be able to utilise them.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
C4	<b>Database and Applications Development</b> 27 hrs (T) 93 hrs (P) Credits: 6 Prerequisite: Nil	IT5042FP	On completion of the module, students should be able to set up, manage and manipulate a relational database, as well as develop software applications that connect to this database.
		Equivalent Code Nil	
C5	<b>Business Enterprise Systems</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT5043FP	On completion of the module, students should be able to install, configure and administer basic application functionalities and business processes in an enterprise solution.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 33 credits from successful completion of 5 modules.

### VENUE

ITE College East

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – CHEMICAL TECHNOLOGY

Course Code: HTCHT

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to carry out prescribed procedures and techniques required for sample processing and analyses of chemicals applicable to the pharmaceutical, petrochemical/chemical, polymer, food and environmental industries.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Introductory Chemistry</b> 45 hrs (T) 75 hrs (P) Credits: 5 Prerequisite: Nil	LS4006FP	On completion of the module, students should be able to perform manual titration, as well as identify the common elements of organic molecules, nomenclature used, chemical structure and bonding, common functional groups, and the properties associated with the various functional groups of organic compounds.
		Equivalent Codes LS4001FP LS4001FPR	
C2	<b>Analytical Chemistry</b> 30 hrs (T) 80 hrs (P) Credits: 4 Prerequisite: Nil	LS4007FP	On completion of the module, students should be able to perform analysis using simple equipment to perform pH test, automated titration, physical tests, extractions, gravimetric and particle size analysis.
		Equivalent Codes LS4002FP LS4002FPR	
C3	<b>Laboratory Techniques and Quality Control</b> 40 hrs (T) 50 hrs (P) Credits: 3 Prerequisite: Nil	LS4005FP	On completion of the module, students should be able to prepare stock solution and perform dilution, maintain the quality standards of chemical laboratory, including record-keeping for traceability purposes, calibration of measuring instruments, and application of quality control tools for laboratory applications.
		Equivalent Codes LS4004FP LS4004FPR	
C4	<b>Sample Handling and Processing</b> 39 hrs (T) 81 hrs (P) Credits: 5 Prerequisite: Nil	LS4010FP	On completion of the module, students should be able to perform common sample pre-treatment methodologies, as well as sampling activities and processes which comply with industrial standards such as cGMP and GLP.
		Equivalent Codes LS5005FP LS5005FPR	
C5	<b>Basic Instrumental Analysis</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Advised to complete LS4001FP & LS4002FP	LS5012FP	On completion of the module, students should be able to perform various modes of spectroscopy, which include ultra-violet and infrared spectrometry, atomic spectrometry, and the applications of inductive-coupled plasma and thermal bench instruments. They will also be able to troubleshoot and maintain spectroscopic and thermal bench instruments.
		Equivalent Codes LS5006FP LS5006FPR	

S/N	Module Details	Module Code	Module Objectives
C6	<b>Advanced Instrumental Analysis</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Advised to complete LS5006FP	LS5013FP	On completion of the module, students should be able to perform the various modes of chromatography, which include High Performance Liquid Chromatography (HPLC), Gas Chromatography (GC), LC-Mass Spectrometry and GC–Mass Spectrometry. They will also be able to troubleshoot and conduct basic routine maintenance for chromatographic instruments.
		Equivalent Codes LS5007FP LS5007FPR	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 31 credits from successful completion of 6 modules.

### VENUE

ITE College East

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – CIVIL & STRUCTURAL ENGINEERING DESIGN

Course Code: HTCSZ

## COURSE OBJECTIVE

This course provides students with the technical skills and knowledge to prepare BIM models, steel structural drawings, reinforced concrete drawings and civil engineering drawings according to designer's sketches and specifications in compliance with architectural drawings and relevant Codes of Practices.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Engineering Graphics</b> 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Nil	ED4001FP	On completion of the module, students should be able to produce technical sketches, engineering detailed drawings, 3D solid modelling, assembly drawings in accordance with ISO standards.
		Equivalent Code ED4001PA	
C2	<b>Building Information Modelling</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Advised to complete ED4001FP	ED4007FP	On completion of the module, students should be able to create 3D models, extract information, perform taking-off from BIM model and produce BIM components.
		Equivalent Code Nil	
C3	<b>Building Structures and External Works</b> 60 hrs (T) 60 hrs (P) Credits: 8 Prerequisite: Advised to complete ED4001FP	ED4004FP	On completion of the module, students should be able to produce foundation layout plans and schedules of footing and staircase, reinforced concrete drawings of floor, staircase, and structural components such as foundations, retaining walls and detailed drawings of external works such as drains, sewers, culverts, carriageway, drainage and sewerage systems.
		Equivalent Code Nil	
C4	<b>Reinforced Concrete Detailing and Design</b> 40 hrs (T) 80 hrs (P) Credits: 8 Prerequisite: Advised to complete ED4001FP	ED5001FP	On completion of the module, students should be able to create 3D models using BIM, to draw structural drawings for piling, pile caps, reinforced concrete core walls, prepare column schedules and detailed drawings of reinforced concrete beams and slabs, precast concrete components and precast beam and slab drawings.
		Equivalent Code Nil	
C5	<b>Steel Structure Detailing and Design</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Advised to complete ED4001FP	ED5003FP	On completion of the module, students should be able to create 3D steel structure models using BIM software and to produce structure working drawings with detailed connections of steel members.
		Equivalent Code ED5003PA	

Abbreviations: T - Theory, P - Practical

**CREDITS FOR CERTIFICATION**

Total of 36 credits from successful completion of 5 modules.

**VENUE**

ITE College Central

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – CYBER & NETWORK SECURITY

Course Code: HTCNZ

## COURSE OBJECTIVE

This course provides students with skills and knowledge to support cyber security related tasks on end-user devices, networks, servers and cloud services to enhance the security of the organisation's IT environment. These tasks include vulnerability scanning, incident monitoring and reporting as well as risk mitigation.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Enterprise Networking</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4045FP	On completion of the module, students should be able to apply the fundamentals of computer networking in relation to the OSI model. They should also be able to set up and configure wired and wireless local area network (LAN) including IP address calculation, switching, routing and network segmentation with Virtual LANs (VLANs). In addition, students will be able to set up wide area network (WAN), implement access control lists, troubleshoot common network issues and problems as well as monitor network performance.
		Equivalent Code Nil	
C2	<b>System Administration</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4043FP	On completion of the module, students should be able to install and set up server operating systems and perform system administration tasks such as user management, resource sharing, security management, preventive maintenance, and performance tuning on these systems. Students will then proceed to perform value-added features such as implementing server security and high-availability systems.
		Equivalent Code Nil	
C3	<b>Virtualization</b> 27 hrs (T) 93 hrs (P) Credits: 6 Prerequisite: Nil	IT4044FP	On completion of the module, students should be able to set up a hypervisor with virtual machines (VMs) and configure clients' access to these VMs. They should also be able to perform backup and recovery of VMs, monitor resource utilisation on the hypervisor, troubleshoot performance and connectivity issues as well as assisting in securing the virtualised infrastructure. They will be introduced to commercially available cloud services and be able to utilise them.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
C4	<b>IT Security</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT5045FP	On completion of the module, students should be able to carry out network intrusion detection, prevention and mitigation through the implementation of intrusion detection system (IDS), firewalls, application gateways, and data encryption technologies. They should also be able to implement appropriate technologies to protect against security attacks such as spams, spyware, worms/viruses, phishing and address spoofing.
		Equivalent Code Nil	
C5	<b>Security Operations</b> 27 hrs (T) 93 hrs (P) Credits: 6 Prerequisite: Nil	IT5046FP	On completion of the module, student should be able to comply with the prevalent cyber security laws. They should be able to take up tasks in a Security Operations Centre (SOC) environment including the configuration of Security Information and Event Management (SIEM) systems, monitoring and identifying security risks, analyzing and classifying security alerts, preparing for and conducting vulnerability scanning, documenting identified vulnerabilities, and applying appropriate counter measures to mitigate identified threats.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 33 credits from successful completion of 5 modules.

### VENUE

ITE College East, ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – ELECTRICAL ENGINEERING

Course Code: HTELE

## COURSE OBJECTIVE

This course provides students with broad-based skills and knowledge in electrical engineering to operate, monitor and perform data-driven predictive maintenance of electrical installations in residential, commercial and industrial premises as well as intelligent control systems and renewable energy systems according to engineering specifications, codes of practice and regulations.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Electrical Design and Installation</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	EE4005FP	On completion of the module, students should be able to design, prepare electrical drawings of and maintain electrical installations in residential, industrial and commercial premises in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE4002FP EE4002FPR	
C2	<b>Electrical Power and Distribution</b> 69 hrs (T) 51 hrs (P) Credits: 7 Prerequisite: Nil	EE4006FP	On completion of the module, students should be able to maintain electrical power and distribution system including switchboards and electrical back up supply system, perform lockout and tag out procedures and remote energy monitoring system in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE5004FP EE5004FPR	
C3	<b>Motor Control and Drives</b> 72 hrs (T) 48 hrs (P) Credits: 7 Prerequisite: Nil	EE4007FP	On completion of the module, students should be able to maintain electrical motor installations including advanced motor drives and control systems and also implement predictive and condition based maintenance in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE5002FP EE5002FPR	
C4	<b>Predictive Maintenance and Servicing</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Nil	EE4008FP	On completion of the module, students should be able to maintain various electrical and industrial equipment and appliances, fire alarm system through the application of condition monitoring and data analysis in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE4001FP EE4001FPR	
C5	<b>Intelligent Building Systems</b> 24 hrs (T) 96 hrs (P) Credits: 6 Prerequisite: Nil	EE5006FP	On completion of the module, students should be able to program and implement smart, internet-linked control and automation solutions for residential and commercial buildings as well as maintain associated digital communication network and cabling system in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE5001FP EE5001FPR	

S/N	Module Details	Module Code	Module Objectives
C6	<b>Solar Photovoltaic Systems</b> 30 hrs (T) 90 hrs (P) Credits: 5 Prerequisite: Nil	EE5007FP Equivalent Codes EE5003FP EE5003FPR	On completion of the module, students should be able to maintain renewable solar energy systems and implement smart, internet-linked instrumentation and monitoring systems in compliance with relevant local standards, regulations and codes of practice.

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 38 credits from successful completion of 6 modules.

### VENUE

ITE College East, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – ELECTRONICS ENGINEERING

Course Code: HTECE / Plan Code: HTECEIC

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to install, configure, test and maintain sensor devices and controllers to support the Internet-of-Things (IoT) architecture platform. Students will learn to program microcontroller-based systems, perform sensors and communication networks interfacing which could be deployed in the healthcare, transportation, logistics, retail, etc. industries.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Analogue Principles and Applications</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC4105FP	On completion of the module, students should be able to interpret, construct, test and analyse various analogue circuits and devices.
		Equivalent Codes EC4002PA EC4008PA EC4101FP EC4101FPR	
C2	<b>Digital Principles and Applications</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC4106FP	On completion of the module, students should be able to interpret, design, construct, test and troubleshoot digital electronic circuits and devices.
		Equivalent Codes EC4004PA EC4010PA EC4102FP EC4102FPR	
C3	<b>Communications and Networking</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC4107FP	On completion of the module, students should be able to set up and maintain wired and wireless Local Area Network (LAN) and radio communication systems. They should be able to perform troubleshooting on networks and systems.
		Equivalent Codes EC4003PA EC4009PA EC4103FP EC4103FPR	
C4	<b>Microcontroller Applications</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Nil	EC4108FP	On completion of the module, students should be able to interpret system requirements, create algorithms and develop microcontroller program to control and monitor external devices.
		Equivalent Codes EC4006PA EC4012PA EC4104FP EC4104FPR	
C5	<b>Devices and Applications</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Advised to complete EC4107FP	EC5501FP	On completion of the module, students should be able to identify and apply the various types of sensors for different applications.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
C6	<b>IoT Integration</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Nil	EC5502FP Equivalent Code Nil	On completion of the module, students should be able to set up and integrate sensors/actuators with controllers; configure and test wired/wireless sensor networks to perform useful tasks. Students will also be able to deploy IoT in areas such as Healthcare, Logistics and Transport.

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 40 credits from successful completion of 6 modules.

### VENUE

ITE College Central, ITE College East, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – FACILITY MANAGEMENT

Course Code: HTFCM

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to supervise the maintenance and management of the typical facilities in a commercial, industrial, institutional or residential building in accordance with authority requirements to ensure optimum functioning of the plant, equipment and systems. These facilities include air-conditioning system, plumbing sanitary and fire protection systems, Building Management System, and other electrical and mechanical systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Mechanical Systems and Services</b> 72 hrs (T) 48 hrs (P) Credits: 6 Prerequisite: Nil	CB4009FP	On completion of the module, students should be able to interpret building system plan, perform inspection of automated doors and pump system, conduct operational test of standby generator, as well as maintain the fire-protection and fire-fighting systems.
		Equivalent Codes CB4001PA CB4001PAR	
C2	<b>Electrical Systems and Services</b> 72 hrs (T) 48 hrs (P) Credits: 7 Prerequisite: Nil	CB4010FP	On completion of the module, students should be able to interpret electrical circuit diagrams, conduct continuity and insulation resistance tests, and coordinate setting up of AV system. They should be able to inspect the lightning protection and earthing system, conduct first line maintenance of uninterruptable power supply, and coordinate maintenance of Extra Low Voltage system as well as the power and lighting circuits.
		Equivalent Codes CB4002PA CB4002PAR	
C3	<b>Air-conditioning Systems</b> 72 hrs (T) 48 hrs (P) Credits: 7 Prerequisite: Nil	CB4011FP	On completion of the module, students should be able to maintain air-conditioning system and supervise components replacement, maintain chilled water centralised system as well as cold room refrigeration system.
		Equivalent Codes CB4003PA CB4003PAR	
C4	<b>Building Management System</b> 72 hrs (T) 48 hrs (P) Credits: 6 Prerequisite: Nil	CB4012FP	On completion of the module, students should be able to interpret the various types of control systems linked to Building Management System (BMS), conduct system wellness check for main and sub-systems, manage common causes of faults, generate and compile system reports linked to BMS, and also supervise manned security services.
		Equivalent Codes CB4004PA CB4004PAR	

S/N	Module Details	Module Code	Module Objectives
C5	<b>Building Services Systems Analysis and Management</b> 72 hrs (T) 48 hrs (P) Credits: 8 Prerequisite: Nil	CB5010FP	On completion of the module, students should be able to interpret architectural drawings, and maintain fittings and fixtures, plumbing sanitary systems as well as the masonry works of the building. Students should be able to supervise swimming pool maintenance, landscaping services, pest control and cleaning activities, monitor lift and escalator maintenance, as well as carry out inspection of painting works and manage electronic car park system.
		Equivalent Codes CB5002PA CB5002PAR	
C6	<b>Project Management and Supervision</b> 72 hrs (T) 48 hrs (P) Credits: 5 Prerequisite: Nil	CB5011FP	On completion of the module, students should be able to plan for resource deployment and work schedule, monitor project activities in accordance with safety, security and statutory requirements, and communicate with stakeholders to ensure co-operation and smooth completion of project.
		Equivalent Codes CB5003PA CB5003PAR	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 39 credits from successful completion of 6 modules.

### VENUE

ITE College East, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
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# HIGHER NITEC IN TECHNOLOGY – GAMES ART & DESIGN

Course Code: HTGAD

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to create art assets for the production of games on various platforms.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Games Design Principles</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	GD4101FP	On completion of the module, students should be able to create a complete game design or a technical design document following the industry requirements. He/she should also be able to manage the game development process, from conceptualisation to the final release of the game.
		Equivalent Code GD4005PA	
C2	<b>Games Level Design</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	GD5101FP	On completion of the module, students should be able to design and edit game levels of different game genres for playability.
		Equivalent Code GD4006PA	
C3	<b>2D Games Asset Creation</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	GD4203FP	On completion of the module, students should be able to illustrate game play elements, process digital imaging and basic multimedia using 2D graphics technologies for developing casual computer games.
		Equivalent Code GD4007PA	
C4	<b>3D Modelling and Texturing for Games</b> 24 hrs (T) 96 hrs (P) Credits: 6 Prerequisite: Nil	GD4204FP	On completion of the module, students should be able to develop a thorough understanding of the 3D workflow, learning how to create, edit, and refine polygon models, add textures and apply UV maps across complex, inorganic environment models and organic game character models.
		Equivalent Code GD4008PA	
C5	<b>3D Rigging and Animation for Games</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	GD5202FP	On completion of the module, students should be able to create rigs for game models and then animate game models in seamless looping cycles based on the various game states of the 3D models.
		Equivalent Code GD5104PA	
C6	<b>Games Portfolio Development</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	GD5203FP	On completion of the module, students should be able to apply design principles to develop a basic portfolio package comprising resume, name card, portfolio pieces and portfolio demo reel for the various tracks in the game industry.
		Equivalent Code GD5105PA	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 41 credits from successful completion of 6 modules.

**VENUE**

ITE College Central

**Note:**

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# HIGHER NITEC IN TECHNOLOGY – GAMES PROGRAMMING & DEVELOPMENT

Course Code: HTGPD

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to write game codes using scripting and programming languages to support game development on various platforms.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Games Design Principles</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	GD4101FP	On completion of the module, students should be able to create a complete game design or a technical design document following the industry requirements. He/she should also be able to manage the game development process, from conceptualisation to the final release of the game.
		Equivalent Code GD4005PA	
C2	<b>Games Level Design</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	GD5101FP	On completion of the module, students should be able to design and edit game levels of different game genres for playability.
		Equivalent Code GD4006PA	
C3	<b>Programming Fundamentals</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	GD4102FP	On completion of the module, students should be able to apply object-oriented concepts and modular techniques to develop programme for computer applications.
		Equivalent Code GD4009PA	
C4	<b>Games Development Techniques</b> 24 hrs (T) 96 hrs (P) Credits: 6 Prerequisite: Nil	GD4104FP	On completion of the module, students should be able to develop 2D games using 2D game authoring tool and 2D game developing techniques.
		Equivalent Code GD4010PA	
C5	<b>Games Programming</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	GD4103FP	On completion of the module, students should be able to design and develop 2D and 3D games using game development engines.
		Equivalent Code GD5204PA	
C6	<b>Mobile Games Development</b> 36 hrs (T) 84 hrs (P) Credits: 7 Prerequisite: Nil	GD5102FP	On completion of the module, students should be able to design, develop and deploy games for mobile devices.
		Equivalent Code GD5205PA	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 41 credits from successful completion of 6 modules.

**VENUE**

ITE College Central

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – IT SYSTEMS & NETWORKS

Course Code: HTISN

## COURSE OBJECTIVE

This course provides students with skills and knowledge to set up, maintain and troubleshoot end-user computing devices, network, server and application in a hybrid infrastructure environment; implement wireless LAN, network security, and support IT project development to ensure smooth operations of Infocomm hardware and software in the organisation.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Computer Maintenance and Operating Systems</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4041FP	On completion of the module, students should be able to perform installation and configuration of operating system and application software on end user computing devices. In addition, they should be able to install and configure peripherals, perform end user computing devices maintenance and troubleshooting of hardware and software problems.
		Equivalent Codes IT4022PA IT4101FP IT4101FPR	
C2	<b>Networking Technology</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4042FP	On completion of the module, students should be able to apply the fundamentals of computer networking in relation to the OSI model. They should also be able to set up and configure wired local area network (LAN) including IP address calculation, switching, routing, routing protocols and virtual local area networks (VLANs).
		Equivalent Codes IT4024PA IT4102FP IT4102FPR	
C3	<b>System Administration</b> 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	IT4043FP	On completion of the module, students should be able to install and set up server operating systems and perform system administration tasks such as user management, resource sharing, security management, preventive maintenance, and performance tuning on these systems. Students will then proceed to perform value-added features such as implementing server security and high-availability systems.
		Equivalent Codes IT5105PA IT4103FP IT4103FPR	
C4	<b>Virtualization</b> 27 hrs (T) 93 hrs (P) Credits: 6 Prerequisite: Nil	IT4044FP	On completion of the module, students should be able to set up a hypervisor with virtual machines (VMs) and configure clients' access to these VMs. They should also be able to perform backup and recovery of VMs, monitor resource utilisation on the hypervisor, troubleshoot performance and connectivity issues as well as assisting in securing the virtualised infrastructure. They will be introduced to commercially available cloud services and be able to utilise them.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
C5	<b>Advanced Networking</b> 27 hrs (T) 93 hrs (P) Credits: 6 Prerequisite: Advised to complete IT4042FP	IT5040FP  Equivalent Codes IT5106PA IT5104FP IT5104FPR	On completion of the module, students should be able to configure advanced routing, switching and IP services, set up WAN Links, implement network access control, monitor and administer a network, and troubleshoot network connectivity.

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 33 credits from successful completion of 5 modules.

### VENUE

ITE College Central, ITE College East, ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – MARINE & OFFSHORE TECHNOLOGY

Course Code: HTMRO

## COURSE OBJECTIVE

This course provides students with broad-based skills and knowledge to perform marine and offshore vessel fabrication works involving preliminary design of pipe routing plan, testing and inspection activities of machinery alignment, supervision on welding and fabrication works, dimension control of fabrication, assisting in system testing, commissioning, and planning of work activities.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Quality Engineering</b> 70 hrs (T) 50 hrs (P) Credits: 8 Prerequisite: Nil	MR4007FP	On completion of the module, students should be able to conduct preliminary safety inspection, perform hazard identification and risk assessment. Students should also be able to verify general arrangement drawings, monitor quality control systems, perform inspection work on brazed joints, heat treatment of materials, cable arrangement, electrical circuits, and perform dimensional checks of engineering components.
		Equivalent Codes MR4003PA MR4007PA MR4007PAR	
C2	<b>Ship Systems</b> 60 hrs (T) 60 hrs (P) Credits: 8 Prerequisite: Nil	MR4008FP	On completion of the module, students should be able to service, maintain propulsion components system, pneumatic and hydraulic control system components; perform inspection work on deck machinery and alignment of marine machinery.
		Equivalent Codes MR4004PA MR4008PA MR4008PAR	
C3	<b>Welding Technology</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	MR4009FP	On completion of the module, students should be able to interpret welding procedures, perform butt, fillet, groove weld joints using submerged arc welding, shield metal arc welding, flux-cored arc welding, gas tungsten arc welding in flat, horizontal and vertical positions. Students should also be able to rectify weld defects, perform non-destructive tests on weld metals and do operational calibration of welding machine.
		Equivalent Codes MR5001PA MR5006PA MR5006PAR	
C4	<b>Fabrication Technology</b> 70 hrs (T) 50 hrs (P) Credits: 8 Prerequisite: Nil	MR4011FP	On completion of the module, students should be able to produce 2-D CAD drawings and sketches of 3-D assembly drawings. Students should also be able to plan resources and work schedules, perform structural markings, read lines plan drawings, carry out development of plates and pipes, material surface inspections, nesting and take-off and prepare load for lifting operations.
		Equivalent Codes MR5003PA MR5008PA MR5008PAR	

S/N	Module Details	Module Code	Module Objectives
C5	<b>Pipe Design and Systems</b> 50 hrs (T) 70 hrs (P) Credits: 7 Prerequisite: Nil	MR5007FP	On completion of the module, students should be able to produce P & ID drawings, isometric drawings of pipe routing plan and prepare pipe cutting plans. Students should also be able to perform pipe spool assembly, dimension checks on pipe spools, and perform leak tests on piping systems.
		Equivalent Codes MR5002PA MR5007PA MR5007PAR	
C6	<b>Offshore Technology</b> Offshore Technology 70 hrs (T) 50 hrs (P) Credits: 9 Prerequisite: Nil	MR5009FP	On completion of the module, students should be able to produce electrical single-line drawings, maintain DC and AC equipment, perform dimension control and level checks of offshore structures, co-ordinate the erection of temporary supports, perform leak and watertightness tests and assist in system testing and commissioning.
		Equivalent Codes MR5004PA MR5009PA MR5009PAR	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 47 credits from successful completion of 6 modules.

### VENUE

ITE College Central

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – MECHANICAL ENGINEERING

Course Code: HTMEC

## COURSE OBJECTIVE

This course provides students with the skills and technical knowledge to carry out technical support functions in mechanical engineering design and operations, perform fault diagnosis and maintenance of instrumentation and control equipment as well as integration of mechanical components and sub-systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Mathematics and Engineering Systems</b> 75 hrs (T) 45 hrs (P) Credits: 7 Prerequisite: Nil	ME4010FP	On completion of the module, students should be able to solve engineering problems involving algebra, indices, graphs, trigonometry and statistics, and to perform electrical installation as well as connect pneumatic and hydraulic control systems.
		Equivalent Codes ME4005PA ME4005PAR	
C2	<b>CAD and Engineering Design</b> 45 hrs (T) 75 hrs (P) Credits: 6 Prerequisite: Nil	ME4011FP	On completion of the module, students should be able to create 2D drawings of engineering components using a CAD system as well as produce 3D solid models and also to design a mechanical system comprising various machine elements.
		Equivalent Codes ME4002PA ME4006PA ME4006PAR	
C3	<b>Quality Engineering</b> 75 hrs (T) 45 hrs (P) Credits: 7 Prerequisite: Nil	ME4012FP	On completion of the module, students should be able to interpret the Workshop Safety and Health (WSH) regulations, the requirements of ISO 9001 and 14001 under Quality Management System, Lean Six Sigma, and apply fundamental quality tools and techniques for problem solving and quality inspection and also the use of precision measuring tools with statistical process control capabilities.
		Equivalent Codes ME4007PA ME4007PAR	
C4	<b>Engineering Materials and Mechanics</b> 75 hrs (T) 45 hrs (P) Credits: 7 Prerequisite: Nil	ME4013FP	On completion of the module, students should be able to classify engineering materials, conduct destructive and non-destructive testing and also able to apply the laws and principles of statics and dynamics to design engineering systems.
		Equivalent Codes ME4008PA ME4008PAR	
C5	<b>System Integration and Controls</b> 75 hrs (T) 45 hrs (P) Credits: 7 Prerequisite: Nil	ME5016FP	On completion of the module, students should be able to perform testing, calibration, fault diagnosis and maintenance of instrumentation and control equipment, program PLC system, interface engineering components and sub-systems, as well as install part feeding system and electrical drive system.
		Equivalent Codes ME5008PA ME5008PAR	

S/N	Module Details	Module Code	Module Objectives
C6	<b>Engineering Development and Applications</b> 45 hrs (T) 75 hrs (P) Credits: 6 Prerequisite: Advised to complete ME4011FP	ME5017FP	On completion of the module, students should be able to carry out design and development activities including applications of design concepts for a sustainable environment, verify product design, perform rapid prototyping, as well as carry out product design change process and enhancement of product design.
		Equivalent Codes ME5009PA ME5009PAR	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 40 credits from successful completion of 6 modules.

### VENUE

ITE College Central, ITE College East, ITE College West

Note:

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# HIGHER NITEC IN TECHNOLOGY – MECHATRONICS ENGINEERING

Course Code: HTMCE

## COURSE OBJECTIVE

This course provides students with broad-based skills and knowledge in electrical, electronics and mechanical discipline to enable them to perform work involving assembling, installing, setting up, testing, commissioning and troubleshooting industrial automated equipment and systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>CAD and Electro-Mechanical Applications</b> 33 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	MC4011FP	On completion of the module, students should be able to read, interpret and produce common geometrical and mechanical drawings using Computer-Aided Drafting (CAD) software; use common tools and equipment to fabricate and service simple mechanical elements and assemble aluminium profile structures.
		Equivalent Codes MC4011PA MC4001FP MC4001FPR	
C2	<b>Electrical and Electronics Applications</b> 54 hrs (T) 54 hrs (P) Credits: 7 Prerequisite: Nil	MC4012FP	On completion of the module, students should be able to analyse circuit schematic and board layout; and perform in-circuit measurement. They should also be able to identify faulty components and replace them. Students should also be able to conduct performance test to ensure that the circuit is working as intended.
		Equivalent Codes MC4010PA MC4002FP MC4002FPR	
C3	<b>Pneumatics and Automation</b> 45 hrs (T) 63 hrs (P) Credits: 7 Prerequisite: Nil	MC4013FP	On completion of the module, students should be able to apply electro-mechanical control systems, including common input/output devices, pneumatics and electro-pneumatics systems in industrial automation.
		Equivalent Codes MC4012PA MC4003FP MC4003FPR	
C4	<b>PLC and Motor Control</b> 27 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Nil	MC4014FP	On completion of the module, students should be able to apply Programmable Logic Controller (PLC) programming to interface and control PLC-controlled applications and to use advanced PLC instructions to program PLC intelligent modules for industrial automations.
		Equivalent Codes MC5011PA MC4004FP MC4004FPR	

S/N	Module Details	Module Code	Module Objectives
C5	<b>Cyber Physical Systems</b> 54 hrs (T) 54 hrs (P) Credits: 7 Prerequisite: Nil	MC5011FP	On completion of the module, students should be able to troubleshoot and maintain the sub-systems associated with a Cyber Physical System / flexible manufacturing system, such as Conveyor, Automated Guided Vehicle, Automated Storage and Retrieval, Data Identification, Machine Vision, Human Machine Interface, Supervisory Control, Data Acquisition, Internet of Things, Communication Networking, Quality Assurance, Process Control and Maintenance Management.
		Equivalent Codes MC5012PA MC5001FP MC5001FPR	
C6	<b>Robotics Systems</b> 33 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	MC5012FP	On completion of the module, students should be able to set up, program, operate, troubleshoot and maintain a robotic system, and solve engineering problems involving statics, dynamics, kinematics and kinetics. Students are also trained to apply microcontroller programming concepts used in control circuits of microcontroller-based equipment.
		Equivalent Codes MC5010PA MC5002FP MC5002FPR	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 42 credits from successful completion of 6 modules.

### VENUE

ITE College Central, ITE College West

### Note:

- 1) Applicant must be free from colour appreciation deficiency.
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# HIGHER NITEC IN TECHNOLOGY – ROBOTICS & SMART SYSTEMS

Course Code: HTRSS

## COURSE OBJECTIVE

This course provides students with the skills and technical knowledge in robotics programming, smart systems design and testing, and IoT sensors applications and connectivity.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Robotics and Applications</b> 54 hrs (T) 54 hrs (P) Credits: 7 Prerequisite: Nil	MC4005FP	On completion of the module, students should be able to install, program, operate, troubleshoot Industrial and collaborative robotic system.
		Equivalent Code Nil	
C2	<b>Electrical Applications</b> 54 hrs (T) 54 hrs (P) Credits: 7 Prerequisite: Nil	MC4006FP	On completion of the module, students should be able to setup, design and construct electrical control system and electronic circuits. They should also be able to test and troubleshoot faulty circuits.
		Equivalent Code Nil	
C3	<b>Mobile Robotics and Control</b> 54 hrs (T) 54 hrs (P) Credits: 7 Prerequisite: Nil	MC4007FP	On completion of the module, students should be able to apply knowledge of localisation, mapping and obstacles avoidance to perform navigation on mobile robotics platform.
		Equivalent Code Nil	
C4	<b>Smart Sensors and Integration</b> 54 hrs (T) 54 hrs (P) Credits: 7 Prerequisite: Nil	MC4008FP	On completion of the module, students should be able to install, integrate and troubleshoot smart sensor system, and apply the system into Industry 4.0 and Internet of Things (IoT).
		Equivalent Code Nil	
C5	<b>End Effectors</b> 12 hrs (T) 96 hrs (P) Credits: 8 Prerequisite: Nil	MC5005FP	On completion of the module, students should be able to design end effector using 3D solid modelling, produce end effector using 3D printing, and test end effector based on its application.
		Equivalent Code Nil	
C6	<b>Smart Systems and Programming</b> 12 hrs (T) 96 hrs (P) Credits: 6 Prerequisite: Nil	MC5006FP	On completion of the module, students should be able to install, configure and test the robot vision system and acquire the images through network protocol for analysis; and to apply microcontroller programming concept to control microcontroller-based devices and equipment.
		Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

## **CREDITS FOR CERTIFICATION**

Total of 42 credits from successful completion of 6 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
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- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# HIGHER NITEC IN TECHNOLOGY – SECURITY SYSTEM INTEGRATION

Course Code: HTSSN

## COURSE OBJECTIVE

Upon completion of this course, students should be able to manage the installation, integration, commissioning and servicing of security systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>System Administration and Storage</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY4005FP	On completion of the module, students should be able to install, configure and perform administration tasks on Windows-based operating systems and storage systems.
		Equivalent Codes SY4001FP SY4001FPR	
C2	<b>Network Technology</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY4006FP	On completion of the module, students should be able to plan, install, configure and troubleshoot computer network system for the wired and wireless LAN environment.
		Equivalent Codes EC4018PA SY4002FP SY4002FPR	
C3	<b>Intrusion and Access Control</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY4007FP	On completion of the module, students should be able to design, maintain and troubleshoot intrusion and access control systems in various security environments.
		Equivalent Codes EC4019PA SY4003FP SY4003FPR	
C4	<b>Video Surveillance</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY4008FP	On completion of the module, students should be able to design, maintain and troubleshoot video surveillance system in various security environments.
		Equivalent Codes EC4020PA SY4004FP SY4004FPR	
C5	<b>Project Management</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	SY5004FP	On completion of the module, students should be able to plan and manage security systems projects.
		Equivalent Codes EC5009PA SY5001FP SY5001FPR	

S/N	Module Details	Module Code	Module Objectives
C6	<b>Integrated Security System Design</b> 30 hrs (T) 90 hrs (P) Credits: 7 Prerequisite: Advised to complete SY4006FP, SY4007FP & SY4008FP	SY5005FP	On completion of the module, students should be able to design and integrate a security system solution to meet customers' need and requirements.
		Equivalent Codes EC5010PA SY5002FP SY5002FPR	

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 42 credits from successful completion of 6 modules.

### VENUE

ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency and criminal record.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.



# National ITE Certificate (Nitec) Courses



# NITEC IN SERVICES – BEAUTY & WELLNESS

## (EFFECTIVE JANUARY 2021 INTAKE)

Course Code: NSBTW / Plan Code: NSBTW

### COURSE OBJECTIVE

This course provides students with the skills and knowledge to provide a range of beauty and wellness treatments to clients that will enhance their overall aesthetic appearance.

### COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Basic Makeup</b> 40 hrs (T) 60 hrs (P) Credits: 4 Prerequisite: Nil	AW2006FP	On completion of the module, students should be able to provide day and evening makeup, as well as camouflage makeup.
		Equivalent Code AW2001FP	
M2	<b>Basic Nail Care</b> 20 hrs (T) 80 hrs (P) Credits: 3 Prerequisite: Nil	AW2008FP	On completion of the module, students should be able to provide manicure and pedicure service.
		Equivalent Code AW2003FP	
M3	<b>Basic Facial</b> 40 hrs (T) 60 hrs (P) Credits: 4 Prerequisite: Nil	AW2009FP	On completion of the module, students should be able to provide basic facial treatment and shape eyebrows.
		Equivalent Codes AW20320 AW20320R AW2002FP	
M4	<b>Bridal Makeup</b> 20 hrs (T) 80 hrs (P) Credits: 3 Prerequisite: AW2006FP	AW2011FP	On completion of the module, students should be able to provide western and ethnic bridal makeup.
		Equivalent Code Nil	
M5	<b>Hand and Foot Spa</b> 20 hrs (T) 60 hrs (P) Credits: 3 Prerequisite: AW2008FP	AW3006FP	On completion of the module, students should be able to provide hand and foot spa service.
		Equivalent Code AW2003FP	
M6	<b>Facial and Waxing Treatments</b> 20 hrs (T) 80 hrs (P) Credits: 3 Prerequisite: AW2009FP	AW3008FP	On completion of the module, students should be able to provide advanced facial treatment, high frequency treatment, and waxing for facial and body hair removal.
		Equivalent Codes AW30210 AW30210R AW3001FP	

Abbreviations: T – Theory, P – Practical

## **CREDITS FOR CERTIFICATION**

Total of 20 credits from successful completion of 6 modules.

## **OTHER ENTRY REQUIREMENTS**

- Passed /SC in Hairdressing

## **VENUE**

ITE College East

Note:

- 1) Applicant must attend an interview for admission, and provide a self-declaration of medical condition at the start of each module.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN SERVICES – BUSINESS ADMINISTRATION

Course Code: NSBSA / Plan Code: NSBSA

## COURSE OBJECTIVE

This course equips students with the skills and knowledge to perform a range of administrative tasks in support of business operations across all sectors and industries.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Business Communication</b> 80 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	BS2008FP	On completion of the module, students should be able to apply essential communication skills to build professional relationships, and prepare business documents as well as presentations.
		Equivalent Code Nil	
M2	<b>Introduction to Data Analytics and Cyber-security</b> 40 hrs (T) 80 hrs (P) Credits: 4 Prerequisite: Nil	BS2011FP	On completion of the module, students should be able to adopt spreadsheet and analytics software to visualise and analyse data, and generate formatted reports to facilitate informed business decision. Students will also gain awareness on the importance of data confidentiality and data security.
		Equivalent Code Nil	
M3	<b>Business Accounting</b> 90 hrs (T) 30 hrs (P) Credits: 7 Prerequisite: Nil	BA3001FP	On completion of the module, students should be able to record business transaction, prepare ledger, bank reconciliation statement, trial balance and final account.
		Equivalent Code Nil	
M4	<b>Finance Service Administration</b> 40 hrs (T) 60 hrs (P) Credits: 4 Prerequisite: Nil	BA3002FP	On completion of the module, students should be able to provide administrative support to handle financial activities relating to deposit account, loan, remittance and other financial products and services.
		Equivalent Code Nil	
M5	<b>Human Resource Services</b> 60 hrs (T) 40 hrs (P) Credits: 4 Prerequisite: Nil	BA2001FP	On completion of the module, students should be able to perform essential human resource functions to meet organisational needs.
		Equivalent Code Nil	
M6	<b>International Business</b> 40 hrs (T) 60 hrs (P) Credits: 4 Prerequisite: Nil	BA3003FP	On completion of the module, students should be able to provide essential information on international trade framework, transportation network and trade financing.
		Equivalent Code Nil	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 28 credits from successful completion of 6 modules.

**VENUE**

ITE College Central, ITE College East, ITE College West

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN SERVICES – BUSINESS SERVICES

## (EFFECTIVE JANUARY 2021 INTAKE)

Course Code: NSBSV / Plan Code: NSBSV

### COURSE OBJECTIVE

This course provides students with the skills and knowledge to provide front line support and service for an organisation's clients and customers.

### COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Business Communication</b> 80 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	BS2008FP	On completion of the module, students should be able to apply essential communication skills to build professional relationships, and prepare business documents as well as presentations.
		Equivalent Code Nil	
M2	<b>Introduction to Data Analytics and Cyber-security</b> 40 hrs (T) 80 hrs (P) Credits: 4 Prerequisite: Nil	BS2011FP	On completion of the module, students should be able to adopt spreadsheet and analytics software to visualise and analyse data, and generate formatted reports to facilitate informed business decision. Students will also gain awareness on the importance of data confidentiality and data security.
		Equivalent Code Nil	
M3	<b>Social Media Marketing</b> 40 hrs (T) 60 hrs (P) Credits: 4 Prerequisite: Nil	BS2012FP	On completion of the module, students should be able to apply online media tools to execute the organisation's social media marketing strategies.
		Equivalent Code Nil	
M4	<b>Customer Service</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite: Nil	BS2013FP	On completion of the module, students should be able to identify and respond to customer and stakeholders needs, create and deliver value for targeted customers and the organisation.
		Equivalent Codes BS2002FP BS2002FPR	
M5	<b>Event Planning and Administration</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite: Nil	BS3008FP	On completion of the module, students should be able to plan an office event and handle event administration.
		Equivalent Codes BS3003FP BS3003FPR	
M6	<b>Sales Techniques and Engagement</b> 60 hrs (T) 40 hrs (P) Credits: 4 Prerequisite: Nil	BS3009FP	On completion of the module, students should be able to apply sales techniques to sell to client needs and develop strong sales relationships.
		Equivalent Code Nil	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 27 credits from successful completion of 6 modules.

**VENUE**

ITE College Central, ITE College East, ITE College West

**Note:**

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN SERVICES – DIGITAL ANIMATION

Course Code: NSDAN / Plan Code: NSDANAC / NSDAN3D

## COURSE OBJECTIVE

This course provides students with the skills and technical knowledge to assist the Digital Artist, CG Artist, and/or Animator to prepare and perform related tasks from pre-production design to digital asset creation, animation production and post-production in 3D lighting, compositing and rendering using CGI techniques to support the media industry in their animation production.

This course provides training in one of the 2 specialisations:

### Asset Creation (Plan Code: NSDANAC)

This specialisation provides students with the skills and ability needed to create assets for the media industry.

### 3D Animation (Plan Code: NSDAN3D)

This specialisation provides students with the skills and ability needed to produce 3D animation for the media industry.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Drawing</b> 12 hrs (T) 108 hrs (P) Credits: 6 Prerequisite: Nil	DM2105FP	On completion of the module, students should be able to apply the fundamentals of drawing skills, composition and its techniques for the creation of still life drawing, figure drawing, perspective, and gesture drawing for characters.
		Equivalent Codes DM2013PA DM2013PAR	
M2	<b>Classical Animation Principles</b> 30 hrs (T) 90 hrs (P) Credits: 8 Prerequisite: Nil	DM2106FP	On completion of the module, students should be able to apply the principles of classical animation to the drawing of key poses in action. They are also trained to develop drawing skills specifically for animation through hands-on experience in performing in-betweens and gain knowledge of spacing and timing. They are able to animate using key poses, cut-out animation and character animation based on a dialogue with body mechanics, gestures, lip synch, and facial expressions. They are also trained on advanced animation principles utilising acting to enhance the performance of the characters being animated via experimental animation.
		Equivalent Code Nil	
M3	<b>Animation Design and Layout</b> 12 hrs (T) 108 hrs (P) Credits: 6 Prerequisite: Nil	DM2107FP	On completion of the module, students should be able to apply the basic principles of form, composition, shapes and colour to create key layout and background designs. They are also trained in the creative processes for content creation in digital animation such as character and background designs, costume, accessories and props, etc. They are also trained to create background colour scheme, render background art and colour grading of background art.
		Equivalent Codes DM2016PA DM2016PAR	

S/N	Module Details	Module Code	Module Objectives
M4	<b>Essentials of 3D Animation</b> 12 hrs (T) 108 hrs (P) Credits: 5 Prerequisite: Nil	DM2108FP	On completion of the module, students should be able to perform basic 3D asset creation involving modelling, texturing, rigging, lighting and rendering. They are also taught the basic 3D animation such as body mechanics, animation rigs and facial animation. At the end of the module, the students will understand the entire 3D production workflow.
		Equivalent Code Nil	

## AND - Choose Group A or B

### Group A – Asset Creation

S/N	Module Details	Module Code	Module Objectives
M5A	<b>Asset Creation</b> 12 hrs (T) 108 hrs (P) Credits: 8 Prerequisite: Advised to complete DM2108FP before attempting DM3109FP.	DM3109FP	On completion of the module, students should be able to perform the various stages of 3D asset creation, namely surface and polygonal modelling, creating textures and shaders, painting weights and rigs, 3D lighting and rendering. They are also taught via hands-on training in processes revolving the 3D environment. At the end of the module, the students apply the acquired technical knowledge to create a series of 3D rendered images.
		Equivalent Code Nil	
M6A	<b>Asset Creation Portfolio</b> 12 hrs (T) 108 hrs (P) Credits: 6 Prerequisite: Advised to complete all the other core modules.	DM3110FP	On completion of the module, students should be able to apply all the acquired knowledge throughout the course to produce a 3D asset demo reel such as 3D model turntable, character and creature models, 3D props, hard surface and soft surface assets in their portfolio. Students are also trained to prepare their 3D portfolio for future interview materials.
		Equivalent Code Nil	

### Group B – 3D Animation

S/N	Module Details	Module Code	Module Objectives
M5B	<b>3D Animation</b> 12 hrs (T) 108 hrs (P) Credits: 8 Prerequisite: Advised to complete DM2108FP before attempting DM3209FP.	DM3209FP	On completion of the module, students should be able to animate according to a style and a particular staging. They are also trained in character animation, namely body mechanics, acting for animation and lip sync. At the end of the module, the students apply the acquired technical knowledge to create a series of 3D animated shots.
		Equivalent Codes DM3203PA DM3203PAR	
M6B	<b>3D Animation Portfolio</b> 12 hrs (T) 108 hrs (P) Credits: 6 Prerequisite: Advised to complete all the other core modules.	DM3210FP	On completion of the module, students should be able to apply all the acquired knowledge throughout the course to produce a 3D animation reel of character animation using advanced body mechanics, pantomime, and facial animation with lip sync. Students are also trained to prepare their 3D portfolio for future interview materials.
		Equivalent Codes DM3204PA DM3204PAR	

Abbreviations: T – Theory, P – Practical

## **CREDITS FOR CERTIFICATION**

Total of 39 credits from successful completion of 6 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) Applicant will be required to attend an interview and pass a drawing test for admission.
- 3) The training schedule of lessons is subject to change.
- 4) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN SERVICES – INTERIOR & EXHIBITION DESIGN

Course Code: NSIED / Plan Code: NSIED

## COURSE OBJECTIVE

This course provides students with the skills and technical knowledge to prepare layout plans, constructional drawings, presentation drawings, illustrations and graphics related to interior and exhibition design, using relevant computer software.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Spatial Visualisation Drawing</b> 10 hrs (T) 110 hrs (P) Credits: 6 Prerequisite: Nil	DM2021FP	On completion of the module, students should be able to apply the principles of drawing and composition to produce basic sketches, orthographic drawing, and perspective drawings with scale and proportion.
		Equivalent Codes SD2001PA SD2101FP SD2101FPR	
M2	<b>Building CAD Drawing</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Nil	DM2022FP	On completion of the module, students should be able to apply the knowledge of orthographic drawing and architectural drawing conventions to prepare a set of building drawings using relevant computer software.
		Equivalent Codes SD2002PA SD2102FP SD2102FPR	
M3	<b>Interior Space Modelling</b> 10 hrs (T) 110 hrs (P) Credits: 6 Prerequisite: Nil	DM2025FP	On completion of the module, students should be able to use digital skills and knowledge to create an interior space model with colour scheme, appropriate lighting application as well as material and finishes.
		Equivalent Codes SD2004PA SD2103FP SD2103FPR	
M4	<b>Space Planning and Design</b> 20 hrs (T) 100 hrs (P) Credits: 7 Prerequisite: Advised to complete DM2022FP	DM2026FP	On completion of the module, students should be able to produce interior space planning and layout with the knowledge of spatial as well as work requirements of interior spaces.
		Equivalent Code Nil	
M5	<b>Interior Design Proposal</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Advised to complete DM2025FP	DM3028FP	On completion of the module, students should be able to develop, design and produce an interior design proposal, with a concept/theme as well as application of materials, furniture, fixtures and colours.
		Equivalent Code Nil	

Abbreviations: T – Theory, P – Practical

## **CREDITS FOR CERTIFICATION**

Total of 31 credits from successful completion of 5 modules.

## **VENUE**

ITE College Central

### Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) Applicant will be required to attend an interview and pass a drawing test for admission.
- 3) The training schedule of lessons is subject to change.
- 4) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN SERVICES – RETAIL SERVICES (EFFECTIVE JANUARY 2021 INTAKE)

Course Code: NSRSV / Plan Code: NSRSV

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to promote and sell merchandise, display merchandise, perform cashiering and serve customers in the retail outlet.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Business Communication</b> 80 hrs (T) 20 hrs (P) Credits: 5 Prerequisite: Nil	BS2008FP	On completion of the module, students should be able to communicate effectively, build professional relationships, prepare business documents and presentations for essential workplace communication.
		Equivalent Codes BS3001FP BS3001FPR	
M2	<b>Social Media Marketing</b> 40 hrs (T) 60 hrs (P) Credits: 4 Prerequisite: Nil	BS2012FP	On completion of the module, students should be able to apply online media tools to execute the organisation's social media marketing strategies.
		Equivalent Code Nil	
M3	<b>Retail and Online Selling</b> 70 hrs (T) 40 hrs (P) Credits: 8 Prerequisite: Nil	RS2009FP	On completion of the module, students should be able to perform sales duties by identifying the needs of the customers and applying selling techniques when handling the sales process. In addition, students are expected to be more aware of how technology is transforming the retail selling function.
		Equivalent Codes RS2001FP RS2001FPR RS2005FP	
M4	<b>Retail Operations</b> 80 hrs (T) 40 hrs (P) Credits: 6 Prerequisite: Nil	RS2010FP	On completion of the module, students should be able to handle a range of core retail operations such as receiving, pricing, replenishing and cashiering.
		Equivalent Codes RS2002FP RS2002FPR RS2006FP	
M5	<b>Retail Promotion and e-Marketing</b> 50 hrs (T) 70 hrs (P) Credits: 5 Prerequisite: Nil	RS2007FP	On completion of the module, students should be able to engage in the promotion of goods and services and be aware of the extent technology is transforming retail promotion and marketing landscape.
		Equivalent Codes RS2003FP RS2003FPR	
M6	<b>Visual Merchandising</b> 50 hrs (T) 70 hrs (P) Credits: 4 Prerequisite: Nil	RS3003FP	On completion of the module, students should be able to develop basic visual merchandising skills in executing a visual presentation to enhance a retail store's image, service, and merchandise to its customers.
		Equivalent Codes RS3001FP RS3001FPR	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 32 credits from successful completion of 6 modules.

**VENUE**

ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN SERVICES – VISUAL COMMUNICATION

Course Code: NSVSC / Plan Code: NSVSC

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to plan and create the most effective visual solutions to get messages across in print, electronic and film media using a variety of methods such as colour, type, illustration, photography and various print and layout techniques.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Drawing Fundamentals</b> 18 hrs (T) 102 hrs (P) Credits: 6 Prerequisite: Nil	DM2017FP	On completion of the module, students should be able to apply the fundamental drawing techniques to express their perception of forms using various mediums.
		Equivalent Codes DM2001PA DM2005FP DM2005FPR	
M2	<b>Design Principles</b> 36 hrs (T) 84 hrs (P) Credits: 6 Prerequisite: Nil	DM2018FP	On completion of the module, students should be able to interpret design briefs and apply design elements like form, shapes, lines, colour, and type into compositions that creatively meet client's requirements.
		Equivalent Codes DM2002PA DM2006FP DM2006FPR	
M3	<b>Digital Imaging</b> 36 hrs (T) 84 hrs (P) Credits: 6 Prerequisite: Nil	DM2020FP	On completion of the module, students should be able to create graphics and illustrations using digital imaging software. Students will also be able to digitally manipulate and retouch images according to the specific styles and genres required.
		Equivalent Codes DM2004PA DM2008FP DM2008FPR	
M4	<b>Graphics and Typography</b> 18 hrs (T) 102 hrs (P) Credits: 6 Prerequisite: Nil	DM3016FP	On completion of the module, students should be able to create pictograms and apply effective typography onto design layouts and compositions using software programme.
		Equivalent Codes DM3001PA DM3005FP DM3005FPR	
M5	<b>Prepress Technology</b> 36 hrs (T) 84 hrs (P) Credits: 6 Prerequisite: Nil	DM3017FP	On completion of the module, students should be able to perform press check and develop artwork for final output in desktop publishing.
		Equivalent Codes DM3002PA DM3006FP DM3006FPR	
M6	<b>Project</b> 120 hrs (P) Credits: 6 Prerequisite: Nil	DM3020FP	On completion of the module, students should be able to carry out the design workflow and implement a project using the knowledge and skills acquired.
		Equivalent Codes DM3004PA DM3008FP	

Abbreviations: T – Theory, P – Practical

## **CREDITS FOR CERTIFICATION**

Total of 36 credits from successful completion of 6 modules.

## **VENUE**

ITE College Central

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) Applicant will be required to attend an interview and pass a drawing test for admission.
- 3) The training schedule of lessons is subject to change.
- 4) Depending on the demand, not all the modules in the CET *Nitec* in Services courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – AEROSPACE MACHINING TECHNOLOGY

Course Code: NTASM / Plan Code: NTASM

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to produce aerospace components by planning and carrying out the operations using CAD/CAM system and multi-axis CNC machining centres.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Engineering Drawing and Inspection Techniques</b> 42 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MT2101FP	On completion of the module, students should be able to interpret technical drawings and perform dimensional inspections for the machined components in accordance with ISO standards.
		Equivalent Code Nil	
M2	<b>Engineering Process (Turning)</b> 42 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MT2102FP	On completion of the module, students should be able to set up and operate centre lathes and CNC lathes to produce components in accordance with given specifications.
		Equivalent Code Nil	
M3	<b>Engineering Process (Milling)</b> 42 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MT2103FP	On completion of the module, students should be able to set up and operate conventional milling machines and CNC milling machines to produce components in accordance with given specifications.
		Equivalent Code Nil	
M4	<b>3D CAD/CAM Applications</b> 42 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MT2104FP	On completion of the module, students should be able to interpret engineering drawings, create 3D CAD models and generate & verify CNC part programs using a CAD/CAM system for CNC lathes and CNC milling machines.
		Equivalent Code MT2002PA	
M5	<b>Aerospace Machining</b> 42 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Advised to complete MT2101FP, MT2102FP, MT2103FP & MT2104FP	MT3102FP	On completion of the module, students should be able to develop part program for aerospace parts, set up and operate CNC high speed machining centres to manufacture engine and structural aerospace parts and components.
		Equivalent Code MT3101PA	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Multi-Axis Programming and Machining</b> 42 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Advised to complete MT2101FP, MT2102FP, MT2103FP & MT2104FP	MT3103FP Equivalent Code MT3102PA	On completion of the module, students should be able to develop multi-axis part programs, set up and operate 5-axis CNC universal machining centres to manufacture components in a single set up for the aerospace and, oil & gas industries.

Abbreviations: T – Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 36 credits from successful completion of 6 modules.

### VENUE

ITE College Central

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – AUTOMOTIVE TECHNOLOGY (HEAVY VEHICLES)

Course Code: NTATT / Plan Code: NTATTHV

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to troubleshoot, service, repair and maintain medium and heavy commercial vehicles.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Automotive Principles and Systems</b> 30 hrs (T) 90 hrs (P) Credits: 4 Prerequisite: Nil	AT2101FP	On completion of the module, students should be able to observe workplace health and safety, extract technical information, select and use lifting equipment and hand tools to disassemble and reassemble automotive components as well as the proper disposal of automotive wastes.
		Equivalent Code Nil	
M2	<b>Basic Chassis and Drivetrain Technology</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Nil	AT2102FP	On completion of the module, students should be able to service and replace automotive drivetrain and chassis components like manual transmission clutch and brakes.
		Equivalent Code Nil	
M3	<b>Basic Engine Technology</b> 30 hrs (T) 90 hrs (P) Credits: 4 Prerequisite: Nil	AT2103FP	On completion of the module, students should be able to service engine system components of spark ignition and compression ignition engines.
		Equivalent Code AT2001PA	
M4	<b>Autotronics</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Nil	AT2104FP	On completion of the module, students should be able to interpret measure, diagnose and rectify faults in vehicle electrical systems, electronic circuits and air-conditioning systems.
		Equivalent Code Nil	
M5	<b>Chassis and Drivetrain Technology (Heavy Vehicles)</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Advised to complete AT2102FP	AT3202FP	On completion of the module, students should be able to diagnose and rectify faults in steering, suspension, braking systems as well as driveline system components.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Engine Technology and Powertrain Management (Heavy Vehicles)</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Advised to complete AT2103FP	AT3203FP Equivalent Code Nil	On completion of the module, students should be able to diagnose and rectify faults in engine and powertrain management systems.

Abbreviations: T – Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 40 credits from successful completion of 6 modules.

### OTHER ENTRY REQUIRMENTS

- Passed *ISC* in Mechanical Servicing

### VENUE

ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – AUTOMOTIVE TECHNOLOGY (LIGHT VEHICLES)

Course Code: NTATT / Plan Code: NTATTLV

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to troubleshoot, service, repair and maintain light vehicles such as passenger cars, vans, Sport Utility Vehicles and Multi-Purpose Vehicles.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Automotive Principles and Systems</b> 30 hrs (T) 90 hrs (P) Credits: 4 Prerequisite: Nil	AT2101FP	On completion of the module, students should be able to observe workplace health and safety, extract technical information, select and use lifting equipment and hand tools to disassemble and reassemble automotive components as well as the proper disposal of automotive wastes.
		Equivalent Code Nil	
M2	<b>Basic Chassis and Drivetrain Technology</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Nil	AT2102FP	On completion of the module, students should be able to service and replace automotive drivetrain and chassis components like manual transmission clutch and brakes.
		Equivalent Code Nil	
M3	<b>Basic Engine Technology</b> 30 hrs (T) 90 hrs (P) Credits: 4 Prerequisite: Nil	AT2103FP	On completion of the module, students should be able to service engine system components of spark ignition and compression ignition engines.
		Equivalent Code AT2001PA	
M4	<b>Autotronics</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Nil	AT2104FP	On completion of the module, students should be able to interpret measure, diagnose and rectify faults in vehicle electrical systems, electronic circuits and air-conditioning systems.
		Equivalent Code Nil	
M5	<b>Chassis and Drivetrain Technology (Light Vehicles)</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Advised to complete AT2102FP	AT3102FP	On completion of the module, students should be able to diagnose and rectify faults in steering, suspension, braking systems as well as driveline system components.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Engine Technology and Powertrain Management (Light Vehicles)</b> 45 hrs (T) 75 hrs (P) Credits: 8 Prerequisite: Advised to complete AT2103FP	AT3103FP Equivalent Code Nil	On completion of the module, students should be able to diagnose and rectify faults in engine and powertrain management systems.

Abbreviations: T - Theory, P - Practical

### CREDITS FOR CERTIFICATION

Total of 40 credits from successful completion of 6 modules.

### OTHER ENTRY REQUIREMENTS

- Passed *ISC* in Mechanical Servicing

### VENUE

ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – BUILT ENVIRONMENT (MECHANICAL & ELECTRICAL SERVICES)

Course Code: NTBEM / Plan Code: NTBEM

## COURSE OBJECTIVE

This course provides students with the technical skills and knowledge in first line maintenance work, carry out planned maintenance, and undertake servicing work on air-conditioning systems, firefighting and fire protection systems, electrical and emergency services, amenities, fittings and fixtures, CCTV and AV/PA system for commercial, institutional, industrial and residential buildings in accordance with the manufacturer and authority requirements to ensure optimum functioning of plant, equipment and systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Electrical Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB2106FP	On completion of the module, students should be able to interpret electrical circuit diagrams; install conduits and trunkings; replace light fittings and accessories; rectify faults in electrical circuits; and conduct insulation resistance and continuity tests.
		Equivalent Code CB2101FPR	
M2	<b>Mechanical Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB2107FP	On completion of the module, students should be able to repair mechanical parts, service centrifugal pump, motor-drive assembly, air-cooled petrol and liquid-cooled diesel-driven portable generator, as well as replace faulty component of drive mechanism and door fittings.
		Equivalent Code CB2102FPR	
M3	<b>Residential Air-Conditioning Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB2108FP	On completion of the module, students should be able to install refrigeration piping, set up basic refrigeration system, install unitary and split-type air conditioners, replace faulty fan coil and condensing unit, and carry out preventive maintenance for residential air-conditioning system, water cooler and dehumidifier.
		Equivalent Code CB2103FPR	
M4	<b>Piping and Plumbing Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB2109FP	On completion of the module, students should be able to repair water supply and sanitary piping system, replace piping fittings, sanitary fixtures, rectify faulty water heaters, clear pipe and drain chokes, and inspect water pump and control systems.
		Equivalent Code CB2104FPR	
M5	<b>Sustainable Air-Conditioning and Refrigeration Technology</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	CB3108FP	On completion of the module, students should be able to interpret ducting and piping layout drawings of air-conditioning system, carry out balancing of airflow in air distribution system, perform maintenance of chilled and condenser water piping system, air distribution system and air-conditioning equipment as well as functionality checks on Building Management System. Students will also learn the various sustainable air-conditioning and refrigeration technologies adopted in modern green buildings.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Fire Detection and Protection Systems</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB3109FP Equivalent Code CB3102FPR	On completion of the module, students should be able to interpret building mechanical system plan, inspect fire alarm and detection system, service fire-fighting equipment such as hose reel system, riser system, private hydrant system and automated system, and perform inspection of emergency voice communication system, fire extinguishers and fire suppression system.

Abbreviations: T – Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 37 credits from successful completion of 6 modules.

### OTHER ENTRY REQUIREMENTS

Passed /SC in Electrical Servicing; or  
 Passed /SC in Mechanical Servicing; or  
 Passed /SC in Facility Services; or  
 Passed /SC in Residential Air-Conditioning; or  
 Passed /SC in Residential Plumbing; or  
 Passed /SC in Electrical Wiring.

### VENUE

ITE College East, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – BUILT ENVIRONMENT (VERTICAL TRANSPORTATION)

Course Code: NTBEV / Plan Code: NTBEV

## COURSE OBJECTIVE

This course provides students with the technical skills and knowledge to maintain, troubleshoot, repair and inspect traction lifts and escalators in residential, institutional and commercial buildings in accordance with codes of practice and statutory requirements and engineering specifications.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Electrical Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB2106FP	On completion of the module, students should be able interpret electrical circuit diagrams; install conduits and trunkings; replace light fittings and accessories; rectify faults in electrical circuits; and conduct insulation resistance and continuity tests.
		Equivalent Code CB2101FPR	
M2	<b>Mechanical Services</b> 60 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	CB2107FP	On completion of the module, students should be able repair mechanical parts, service centrifugal pump, motor-drive assembly, air-cooled petrol and liquid-cooled diesel-driven portable generator, as well as replace faulty component of drive mechanism and door fittings.
		Equivalent Code CB2102FPR	
M3	<b>Lift and Escalator System and Equipment Maintenance</b> 36 hrs (T) 84 hrs (P) Credits: 5 Prerequisite: Nil	CB3206FP	On completion of the module, students should be able to identify and explain the operation, interpret lift drawings, as well as maintain, service and repair mechanical equipment and components of lift and escalator system in accordance with lift engineering specifications and codes of practice.
		Equivalent Code CB3401PAR	
M4	<b>Lift and Escalator Power and Control System Maintenance</b> 36 hrs (T) 84 hrs (P) Credits: 5 Prerequisite: Nil	CB3207FP	On completion of the module, students should be able to maintain, service and repair lift controllers, electrical equipment, cables, components, as well as safety switches of lift and escalator systems in accordance with lift engineering specifications and codes of practice, including performing functionality checks of lift control system connection to BMS.
		Equivalent Code CB3402PAR	

S/N	Module Details	Module Code	Module Objectives
M5	<b>Lift and Escalator System Inspection and Testing</b> 30 hrs (T) 90 hrs (P) Credits: 8 Prerequisite: Nil	CB3208FP Equivalent Codes *CB3403PAR & CB3404PAR	On completion of the module, students should be able to inspect and evaluate the condition of a lift hoistway, oversee the correct installation of lift equipment and components, as well as carry out heat run and commissioning tests on lift systems in accordance with lift engineering specifications and codes of practice. Students should also be able to troubleshoot, adjust and carry out routine and periodic maintenance of lift system and equipment, perform mandatory lift and escalator tests, as well as identify and recommend upgrading and improvement works to clients.

Abbreviations: T - Theory, P - Practical

\*Manual exemption after completion of Lift Inspection and Commissioning (CB3403PAR) and Lift Maintenance Management (CB3404PAR) modules.

### CREDITS FOR CERTIFICATION

Total of 30 credits from successful completion of 5 modules.

### OTHER ENTRY REQUIREMENTS

Passed *ISC* in Electrical Servicing; or  
 Passed *ISC* in Mechanical Servicing; or  
 Passed *ISC* in Facility Services; or  
 Passed *ISC* in Residential Air-Conditioning; or  
 Passed *ISC* in Residential Plumbing; or  
 Passed *ISC* in Electrical Wiring.

### VENUE

ITE College East

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – CHEMICAL PROCESS TECHNOLOGY

Course Code: NTCPZ / Plan Code: NTCPZ

## COURSE OBJECTIVE

The bio-pharmaceutical and chemical industries in Singapore are fast growing, fuelled by international investment locally and driven by increased demand internationally. The energy and chemical process industry in Singapore is one of the world's leading hubs through a powerful mix of capabilities in safety, manufacturing and innovation. Singapore remains one of the top choices in the heart of Asia for major biotechnology and pharmaceutical giants, as they capitalise on the nation's proximity in Asia, strong innovation ecosystem and regulatory standards.

Join us if you aspire to gain the skills set that can be applied to these sectors.

The Chemical Process Technology course offers students a broad background in skills and knowledge for the bio-pharmaceutical and chemical industries. The course combines sciences with engineering concepts.

You can choose one of the following two options to further develop your interest:

- a. Bio-pharmaceuticals
- b. Petrochemicals

All options can lead you for a full spectrum of varied employment opportunities in the bio-pharmaceuticals, chemicals and process industries.

Some of the job titles held by graduates include Process Technician, Operation Technician, Plant Maintenance Technician, Process Instrument Technician and Engineering Assistant. There are excellent opportunities for career advancement to supervisory positions and beyond. The challenge is for students to prepare themselves by upgrading their technical skills and knowledge by taking up higher-level courses.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Occupational Health, Safety and Security</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite: Nil	CE2106FP Equivalent Codes CE2011 CE2002P CE2006P CE2001PA CE2102FP CE2102FPR	On completion of the module, students should be able to apply skills and knowledge in performing workplace housekeeping, responding in emergency situations and rendering first aid. They should also be able to apply skills and knowledge in workplace safety, confined space safety, safety audits, risk assessment, permit-to-work system, LOTO, and electrical safety.

S/N	Module Details	Module Code	Module Objectives
M2	<b>Product Quality and Environment Standards</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	CE2107FP	On completion of the module, students should be able to apply statistical process control, perform instrumental analysis on petroleum and pharmaceutical products, perform chromatography, spectroscopy and air-pollution control test. They also learn to conduct tests on effluent waste, perform water quality tests, carry out waste treatment facility operation and handle gas emission upsets.
		Equivalent Code Nil	
M3	<b>Process Instrumentation and Control</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	CE2108FP	On completion of the module, students should be able to perform line tracing and monitor process parameters. They also learn to carry out manual valve operation, control valve with handwheel operation, control valve by-pass operation, and perform instrument functionality check.
		Equivalent Codes CE2013 CE2003P CE2007P CE2002PA CE2002PR CE2103FP CE2103FPR	
M4	<b>Process Equipment and Operation</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	CE2109FP	On completion of the module, students should be able to carry out pump operation, filter operation, heat exchanger operation, reactor operation, mixer operation and ejector operation. They also learn to load and unload material, perform inter-tank transfer, change-over of process equipment and collection of raw material and sampling.
		Equivalent Codes CE2014 CE2004P CE2008P CE2003PA CE2104FP CE2104FPR	
M5	<b>Plant Processes</b> 60 hrs (T) 60 hrs (P) Credits: 5 Prerequisite: Nil Advised to complete CE2109FP	CE3105FP	On completion of the module, students should be able to carry out distillation operation, gas absorber and gas adsorber operation. They also learn to carry out extraction unit operation, evaporator operation and crystalliser operation.
		Equivalent Codes CE3012 CE3002P CE3007P CE3001PA CE3101FP CE3101FPR	

Choose ONLY one of the following modules:

M6a	<b>Biologics and Pharmaceutical Processes</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil Advised to complete CE2109FP	CE3106FP	On completion of the module, students should be able to perform seed and inoculum preparation activities, carry out bioreactor setup and process monitoring operation, perform CIP operation and SIP operation, monitor cell harvesting and filtration operation, perform chromatography column packing and operate large-scale chromatography and filtration equipment. They also learn to perform homogenisation and micronising operation, carry out scrubber operation, isolator operation, phase separation, equipment cleaning operation and waste pre-treatment operation.
		Equivalent Code Nil	

S/N	Module Details	Module Code	Module Objectives
M6b	<b>Equipment Maintenance and Utilities</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil Advised to complete CE2109FP	CE3204FP Equivalent Codes CE3011 CE3001P CE3103P CE3101PA CE3201FP CE3201FPR	On completion of the module, students should be able to carry out reverse osmosis water plant operation, carry out boiler unit operation, carry out steam header and condenser unit operation and carry out compressed air unit operation. They also learn to perform maintenance on pipe system and equipment, check pump and compressor performance, troubleshoot abnormal conditions in pumps and compressors, and prepare process equipment for shutdown maintenance.

Abbreviations: T - Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 38 credits from successful completion of 6 modules.

### VENUE

ITE College East

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – ELECTRICAL TECHNOLOGY (POWER & CONTROL)

Course Code: NTELT / Plan Code: NTELTPC

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to install, test and maintain electrical installations, electrical machines, digital communication, smart metering and monitoring systems as well as renewable energy and electric vehicle electrical infrastructure systems according to engineering specifications and relevant codes of practice.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Residential Installation and Testing</b> 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Nil	EE2106FP	On completion of the module, students should be able to design, install, test and maintain single phase electrical installation and wiring systems in residential premises in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE2104FP EE2104FPR	
M2	<b>Industrial and Commercial Installation and Testing</b> 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Nil	EE2107FP	On completion of the module, students should be able to design, install, test and maintain three phase electrical installation and wiring systems in industrial and commercial premises in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE2102FP EE2102FPR	
M3	<b>Power System and Switchboard</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Nil	EE2109FP	On completion of the module, students should be able to perform proper isolation, lockout tag out procedures as well as maintain low voltage electrical switchboards, power monitoring system and temporary electrical supply system in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE3102FP EE3102FPR	
M4	<b>Sustainable Energy Systems</b> 18 hrs (T) 102 hrs (P) Credits: 5 Prerequisite: Nil	EE3107FP	On completion of the module, students should be able to install, test and/or maintain solar photovoltaic (PV) systems for residential premises, electrical industrial equipment and appliances and electric vehicle (EV) charging equipment and systems in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE3101FP EE3101FPR	
M5	<b>Smart Living Systems</b> 12 hrs (T) 108 hrs (P) Credits: 5 Prerequisite: Nil	EE3108FP	On completion of the module, students should be able to program, test and maintain smart home control systems in compliance with relevant local standards, regulations and codes of practice.
		Equivalent Codes EE2101FP EE2101FPR	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Electrical Machines and Applications</b> 30 hrs (T) 90 hrs (P) Credits: 6 Prerequisite: Nil	EE3109FP Equivalent Codes EE2103FP EE2103FPR	On completion of the module, students should be able to maintain electrical motor installations including their associated conventional, digital and advanced control systems for various industrial motor applications in compliance with relevant local standards, regulations and codes of practice.

Abbreviations: T – Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 34 credits from successful completion of 6 modules.

### OTHER ENTRY REQUIREMENTS

- Passed *ISC* in Electrical Wiring; or
- Passed *ISC* in Electrical Fitting; or
- Passed *ISC* in Electrical Motor Manufacturing; or
- Passed *ISC* in Instrument Fitting; or
- Passed *ISC* in Lift Adjustment & Maintenance; or
- Passed *ISC* in Lift Installation; or
- Passed *ISC* in Electrical Servicing.

### VENUE

ITE College East, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) For information on application for Installer Licence, contact IMDA, Licensing Department on Tel: 62024361 or 62111948, and on application for Electrical Worker Licence, contact Energy Market Authority via email: [ema\\_enquiry@ema.gov.sg](mailto:ema_enquiry@ema.gov.sg) or Tel: 68358075.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – ELECTRONICS, COMPUTER NETWORKING & COMMUNICATIONS

Course Code: NTECZ / Plan Code: NTECZ

## COURSE OBJECTIVE

This course provides students with the skills and knowledge in installing, maintaining and servicing electronic devices, programmable- and microcontroller- controlled systems to support a broad range of applications.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Electrical Principles and Measurements</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC2001FP	On completion of the module, students should be able to apply the basic principles of electrical and electronics to connect and test electrical circuits. They should also be able to construct prototype electronic project on printed board.
		Equivalent Codes EC2101PA EC2105PA EC2101FP EC2101FPR	
M2	<b>Digital Electronics</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC2002FP	On completion of the module, students should be able to interpret, construct, test and troubleshoot basic digital electronic circuits. They should also be able to construct prototype digital electronic circuits.
		Equivalent Codes EC2102PA EC2106PA EC2102FP EC2102FPR	
M3	<b>Analogue Electronics</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC2003FP	On completion of the module, students should be able to interpret, construct, test and troubleshoot analogue electronic circuits. They should be able to construct prototype analogue electronic projects.
		Equivalent Codes EC2103PA EC2107PA EC2103FP EC2103FPR	
M4	<b>Computer Networking Principles</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	EC2004FP	On completion of the module, students should be able to set up and test wired and wireless Local Area Network for resources sharing, identify the various network topologies and protocol; and troubleshoot network connectivity faults.
		Equivalent Code Nil	
M5	<b>Electronic Communications System</b> 48 hrs (T) 72 hrs (P) Credits: 6 Prerequisite : Nil	EC3002FP	On completion of the module, students should be able to apply the knowledge and skills on information transmission and reception in analogue, digital and optical communication for system performance testing and maintenance.
		Equivalent Code Nil	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 34 credits from successful completion of 5 modules.

**OTHER ENTRY REQUIREMENTS**

- Passed *ISC* in Electronics Manufacturing; or
- Passed *ISC* in Wafer Fabrication.

**VENUE**

ITE College Central, ITE College East, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – INFOCOMM TECHNOLOGY

Course Code: NTICT / Plan Code: NTICT

## COURSE OBJECTIVE

This course equips students with skills and knowledge to set up, maintain and troubleshoot end-user computing devices, network, server and application in a hybrid infrastructure environment to ensure smooth operations of all infocomm hardware and software in the organisation.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>IT Essentials and PC Support</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	IT2034FP	On completion of the module, students should be able to set up, install and maintain computer hardware and operating system. They will learn to troubleshoot hardware and software problems.
		Equivalent Codes IT2018PA IT2101FP IT2101FPR	
M2	<b>Networking Essentials</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	IT2035FP	On completion of the module, students should be able to set up, configure, maintain and troubleshoot network system, and build peer-to-peer and wireless network for small office environment. They should be able to provide network support and configure network devices such as switches, routers and wireless access points.
		Equivalent Codes IT2020PA IT2103FP IT2103FPR	
M3	<b>Internetworking Technology</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Advised to complete IT2035FP	IT2036FP	On completion of the module, students should be able to configure and implement routing protocols used in Local Area Network (LAN) as well as troubleshoot basic routing issues.
		Equivalent Codes IT3020PA IT3101FP	
M4	<b>Server Essentials</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	IT2037FP	On completion of the module, students should be able to install, configure and manage administration of server operating systems, servers and services. They should also be able to perform backup and recovery of systems files and configurations as well as monitor system performance.
		Equivalent Codes IT3021PA IT2104FP IT2104FPR	
M5	<b>Internet Applications</b> 24 hrs (T) 96 hrs (P) Credits: 6 Prerequisite: Nil	IT3034FP	On completion of this module, students should be able to install, configure and maintain web servers and browsers. They will learn to create simple web pages using authoring tools. They should also be able to develop and deploy web applications.
		Equivalent Codes IT2021PA IT2102FP IT2102FPR	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 34 credits from successful completion of 5 modules.

**VENUE**

ITE College Central, ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – MECHANICAL TECHNOLOGY

Course Code: NTMET / Plan Code: NTMET

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to perform preventive and predictive maintenance programmes, maintain basic automation control systems and ensure the smooth operation of industrial and mechanical equipment. It also provides grounding in the application of computerised machine conditioning monitoring system and laser alignment techniques.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>CAD and 3D Printing</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	ME2011FP	On completion of the module, students should be able to interpret engineering blueprint drawings, draw engineering components, update engineering drawing and convert 3D models to 2D drawings by using CAD system. Students are also trained to print 3D models from 3D printer and perform free hand sketching of engineering drawings.
		Equivalent Code Nil	
M2	<b>Industrial Piping and Valve System</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	ME2012FP	On completion of the module, students should be able to carry out minor repair and replacement of fluid supply pipes and fittings and to maintain, troubleshoot and repair fluid valves.
		Equivalent Codes ME2002FP ME2002FPR	
M3	<b>Machinery Maintenance</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	ME2013FP	On completion of the module, students should be able to maintain and service bearings and basic engineering mechanisms, lubrication systems and mechanical transmission systems; lift and move heavy loads safely. Students are also trained to maintain, troubleshoot and repair machinery and equipment.
		Equivalent Codes ME2003FP ME2003FPR	
M4	<b>Electro Pneumatics and Hydraulics</b> 48 hrs (T) 60 hrs (P) Credits : 6 Prerequisite: Nil	ME2014FP	On completion of the module, students should be able to install, maintain and troubleshoot electro pneumatic and electro hydraulic systems in plant machinery and auxiliary equipment.
		Equivalent Codes ME3001FP ME3001FPR  ME2004FP* ME2004FPR*	
M5	<b>IoT and Electrical Applications</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Advised to complete ME2013FP	ME3011FP	On completion of the module, students should be able to program microcontroller using High Level Programming Language, transmit the data collected from the sensors to Cloud Server to be presented as graphical information. Students are also trained to understand the types of electrical accessories, connect up simple electrical circuits, and replace faulty electrical components.
		Equivalent Codes ME3002FP ME3002FPR	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Plant Equipment Maintenance</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Advised to complete ME2012FP	ME3012FP Equivalent Codes ME3003FP ME3003FPR	On completion of the module, students should be able to carry out a preventive maintenance programme, install, maintain, troubleshoot and repair air compressor system and industrial fluid pumps.

Abbreviations: T – Theory, P – Practical

\* Manual exemption after completion of Industrial Pneumatics and Hydraulics (ME2004FP, ME2004FPR) module.

### CREDITS FOR CERTIFICATION

Total of 36 credits from successful completion of 6 modules.

### OTHER ENTRY REQUIREMENTS

- Passed *ISC* in Mechanical Servicing; or
- Passed *ISC* in Shielded Metal Arc Welding; or
- Passed *ISC* in Gas Tungsten Arc Welding.

### VENUE

ITE College Central, ITE College East

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – MECHATRONICS & ROBOTICS

Course Code: NTMCR / Plan Code: NTMCR

## COURSE OBJECTIVE

This course provides students with multi-disciplinary skills and knowledge in installing, setting up, operating, maintaining and servicing industrial automated production equipment and systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Pneumatics</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	MC2011FP	On completion of the module, students should be able to install, maintain and troubleshoot pneumatics and electro-pneumatic systems.
		Equivalent Codes MC2001FP MC2001FPR	
M2	<b>Robotics</b> 30 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MC2012FP	On completion of the module, students should be able to install, program, troubleshoot and maintain a robotics system.
		Equivalent Codes MC3002FP MC3002FPR	
M3	<b>Electrical and Electronics Practices</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	MC2013FP	On completion of the module, students should be able to install electrical trunking, and carry out system wiring for machine control, check and test industrial electronics components and simple electronics circuits using common test instruments to identify and rectify faults.
		Equivalent Codes MC2003FP MC2003FPR  MC2002FP* MC2002FPR*	
M4	<b>CAD and Mechanical System</b> 30 hrs (T) 78 hrs (P) Credits : 6 Prerequisite: Nil	MC2014FP	On completion of the module, students should be able to read, interpret and produce geometrical and mechanical drawings using Computer-Aided Drafting (CAD) software; fabricate parts according to specifications in work drawing and work samples; carry out maintenance to service, adjust and align mechanical elements.
		Equivalent Code Nil	
M5	<b>Drives and Motor Control</b> 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	MC3011FP	On completion of the module, students should be able to install, maintain, troubleshoot and modify common AC and DC motor and control circuits used in automated and manufacturing systems.
		Equivalent Codes MC3001FP MC3001FPR	
M6	<b>PLC and Automation</b> 30 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MC3012FP	On completion of the module, students should be able to carry out installations, operations and troubleshooting of programmable logic controller & sensors systems used in automated system and manufacturing systems.
		Equivalent Codes MC3003FP MC3003FPR	

Abbreviations: T – Theory, P – Practical

\*Manual exemption after completion of Electrical Installation (MC2002FP, MC2002FPR) module.

**CREDITS FOR CERTIFICATION**

Total of 36 credits from successful completion of 6 modules.

**OTHER ENTRY REQUIREMENTS**

- Passed /SC in Autonomous Maintenance; or
- Passed /SC in Electrical Servicing.

**VENUE**

ITE College Central, ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – SECURITY TECHNOLOGY

Course Code: NTSYT / Plan Code: NTSYT

## COURSE OBJECTIVE

This course provides students with integrated skills and knowledge in installing, commissioning, troubleshooting and upgrading security systems.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Electronics Fundamentals</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY2005FP	On completion of the module, students should be able to explain basic principles of electricity and electronics, use electrical measuring instruments as well as to apply the operating principles of various electronics components to interpret the circuitries used in security systems.
		Equivalent Codes EC2013PA EC2021PA SY2001FP	
M2	<b>Wired and Wireless Network</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY2008FP	On completion of the module, students should be able to install, configure and troubleshoot computer network system for the wired and wireless LAN environment.
		Equivalent Codes EC2022PA SY2002FP	
M3	<b>Cabling Technology</b> 45 hrs (T) 75 hrs (P) Credits: 6 Prerequisite: Nil	SY2007FP	On completion of the module, students should be able to use cabling test equipment to perform testing and diagnosis and to certify the performance of network cables.
		Equivalent Codes EC2023PA SY2003FP	
M4	<b>Intrusion and Access Control Technology</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY3005FP	On completion of the module, students should be able to design, maintain and troubleshoot intrusion and access control systems in various security environments.
		Equivalent Codes EC3018PA EC3027PA SY3002FP	
M5	<b>Surveillance Technology</b> 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Nil	SY3006FP	On completion of the module, students should be able to design, maintain and troubleshoot video surveillance system in various security environments.
		Equivalent Codes EC3017PA EC3028PA SY3003FP	

Abbreviations: T – Theory, P – Practical

**CREDITS FOR CERTIFICATION**

Total of 34 credits from successful completion of 5 modules.

**VENUE**

ITE College West

**Note:**

- 1) Applicant must be free from colour appreciation deficiency and criminal record.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.

# NITEC IN TECHNOLOGY – WEB APPLICATIONS

Course Code: NTWEB / Plan Code: NTWEB

## COURSE OBJECTIVE

This course aims to equip students with the skills and knowledge to develop and implement web applications on different devices and media platforms to ensure effective interactive experience and efficient display of information.

## COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	<b>Web Development Fundamentals</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Nil	IT2040FP	On completion of the module, students should be able to develop web pages using HTML and CSS, and ensure that the web pages comply with W3C standards.
		Equivalent Code IT2031FP	
M2	<b>Content Management System</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Advised to complete IT2040FP	IT2041FP	On completion of the module, students should be able to create, manage, and publish dynamic web content using Content Management System (CMS).
		Equivalent Code IT2032FP	
M3	<b>Programming Essentials</b> 48 hrs (T) 72 hrs (P) Credits: 7 Prerequisite: Advised to complete IT2040FP	IT2042FP	On completion of the module, students should be able to develop programs using programming concepts such as data types, operators, control structures and arrays.
		Equivalent Code IT2033FP	
M4	<b>Rich Interactive Applications</b> 21 hrs (T) 99 hrs (P) Credits: 6 Prerequisite: Nil	IT3039FP	On completion of the module, students should be able to develop interactive applications on different platforms.
		Equivalent Code IT3030FP	
M5	<b>Website Development</b> 21 hrs (T) 99 hrs (P) Credits: 6 Prerequisite: Advised to complete IT2040FP & IT2042FP	IT3040FP	On completion of the module, students should be able to develop web applications using server side scripting with database integration.
		Equivalent Code IT3031FP	

S/N	Module Details	Module Code	Module Objectives
M6	<b>Mobile Web Development</b> 21 hrs (T) 99 hrs (P) Credits: 6 Prerequisite: Advised to complete IT2040FP & IT2042FP	IT3041FP Equivalent Code IT3032FP	On completion of the module, students should be able to develop and deploy responsive interactive mobile web applications.

Abbreviations: T – Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 39 credits from successful completion of 6 modules.

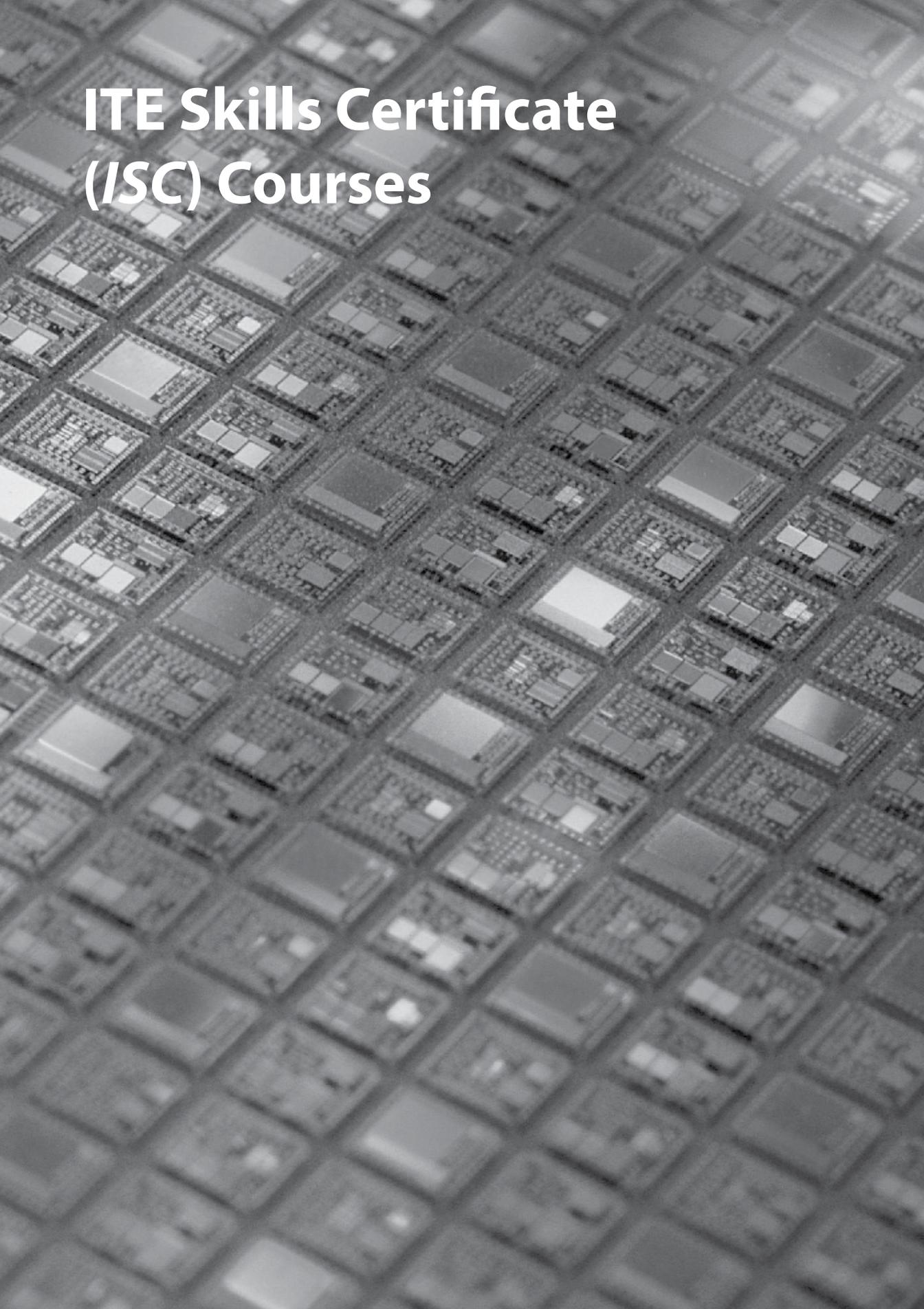
### VENUE

ITE College Central

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.



An aerial, high-angle photograph of a city grid, showing a dense pattern of streets and buildings. The perspective is from a high altitude, looking down at an angle, creating a sense of depth and scale. The buildings are mostly rectangular and arranged in a regular grid pattern. The streets are narrow and form a consistent pattern across the entire image. The overall tone is grayscale, with various shades of gray representing the different structures and shadows.

# **ITE Skills Certificate (ISC) Courses**

# ISC IN ELECTRICAL WIRING

Course Code: C4EWG

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to install, test and maintain electrical circuits under the supervision of a Licensed Electrical Worker (LEW) in residential, commercial and industrial premises.

## COURSE STRUCTURE

### ITE Skills Certificate Module

Module Details	Module Code	Module Objectives
<b>Electrical Wiring</b> 21 hrs (T) 99 hrs (P) Credits: NA Prerequisite: Nil	EE1102FP	On completion of the module, students should be able to install, test and maintain electrical circuits under the supervision of a Licensed Electrical Worker (LEW) in residential, commercial and industrial premises.
	Equivalent Code Nil	

Abbreviations: T – Theory, P – Practical

## AWARD OF CERTIFICATION

The ITE Skills Certificate in Electrical Wiring is awarded to candidates who achieve a minimum aggregate score of 60% for both theory and practical assessments.

## VENUE

ITE College East

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) This *ISC* course will be offered only if there is sufficient demand to form a class. Where there is insufficient enrolment, the class/course will be cancelled and a full refund will be given to the affected students.

# ISC IN GAS TUNGSTEN ARC WELDING

Course Code: C4TIG

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to weld ferrous and non-ferrous metal plates, pipes and profile sections in flat and horizontal positions using gas tungsten arc welding process to form permanently assembled structures in accordance with internationally-accepted welding standards (ASME). Adult learners who complete this course can work independently for construction, marine and manufacturing companies to carry out welding works using the gas tungsten arc welding process.

## COURSE STRUCTURE

### ITE Skills Certificate Module

Module Details	Module Code	Module Objectives
<b>Gas Tungsten Arc Welding</b> 21 hrs (T) 99 hrs (P) Credits: NA Prerequisite: Nil	ME1101FP	On completion of the module, students should be able to weld ferrous and non-ferrous metal plates, pipes and profile sections in flat and horizontal positions using gas tungsten arc welding process to form permanently assembled structures in accordance with internationally-accepted welding standards (ASME).
	Equivalent Code Nil	

Abbreviations: T - Theory, P – Practical

## AWARD OF CERTIFICATION

The ITE Skills Certificate in Gas Tungsten Arc Welding is awarded to candidates who achieve a minimum aggregate score of 60% for both theory and practical assessments.

## VENUE

ITE College Central

Note:

- 1) The training schedule of lessons is subject to change.
- 2) This /SC course will be offered only if there is sufficient demand to form a class. Where there is insufficient enrolment, the class/course will be cancelled and a full refund will be given to the affected students.

# ISC IN RESIDENTIAL AIR-CONDITIONING

Course Code: C4RAC

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to perform simple electrical installation, routine maintenance, parts replacement, install and test a residential air-conditioning unit. Adult learners who had completed this course is able to work for air-conditioning companies to install and service residential air-conditioning units.

## COURSE STRUCTURE

### ITE Skills Certificate Module

Module Details	Module Code	Module Objectives
<b>Residential Air-Conditioning</b> 22 hrs (T) 108 hrs (P) Credits: NA Prerequisite: Nil	CB1101FP	On completion of the module, students should be able to perform simple electrical installation, routine maintenance, parts replacement, install and test a residential air-conditioning unit.
	Equivalent Code Nil	

Abbreviations: T - Theory, P – Practical

## AWARD OF CERTIFICATION

The ITE Skills Certificate in Residential Air-Conditioning is awarded to candidates who achieve a minimum aggregate score of 60% for both theory and practical assessments.

## VENUE

ITE College East

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) This *ISC* course will be offered only if there is sufficient demand to form a class. Where there is insufficient enrolment, the class/course will be cancelled and a full refund will be given to the affected students.

# ISC IN RESIDENTIAL PLUMBING

Course Code: C4RPB

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to install, repair and service residential piping systems and fixtures of water service and sanitary plumbing systems in residential buildings in accordance with manufacturers' guidelines, statutory requirements and respective codes of practices. Adult learners who complete this course, can work for plumbing or building maintenance companies to install and service residential plumbing under the supervision of a licensed plumber.

## COURSE STRUCTURE

### ITE Skills Certificate Module

Module Details	Module Code	Module Objectives
<b>Residential Plumbing</b> 39 hrs (T) 81 hrs (P) Credits: NA Prerequisite: Nil	CB1102FP	On completion of the module, students should be able to install, repair and service residential piping systems and fixtures of water service and sanitary plumbing systems in residential buildings in accordance with manufacturers' guidelines, statutory requirements and respective codes of practices.
	Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

## AWARD OF CERTIFICATION

The ITE Skills Certificate in Residential Plumbing is awarded to candidates who achieve a minimum aggregate score of 60% for both theory and practical assessments.

## VENUE

ITE College East

Note:

- 1) The training schedule of lessons is subject to change.
- 2) This *ISC* course will be offered only if there is sufficient demand to form a class. Where there is insufficient enrolment, the class/course will be cancelled and a full refund will be given to the affected students.

# ISC IN SHIELDED METAL ARC WELDING

Course Code: C4SMA

## COURSE OBJECTIVE

This course provides students with the skills and knowledge to weld ferrous metal plates, structures and pipes in flat, horizontal and vertical positions using the shielded metal arc welding process to form permanently assembled metal structures in accordance with internationally-accepted welding standards (ASME). Adult learners who complete this course can work independently for construction, marine and manufacturing companies to carry out welding works using the shielded metal arc welding process.

## COURSE STRUCTURE

### ITE Skills Certificate Module

Module Details	Module Code	Module Objectives
<b>Shielded Metal Arc Welding</b> 24 hrs (T) 75 hrs (P) Credits: NA Prerequisite: Nil	ME1102FP	On completion of the module, students should be able to weld ferrous metal plates, structures and pipes in flat, horizontal and vertical positions using the shielded metal arc welding process to form permanently assembled metal structures in accordance with internationally-accepted welding standards (ASME).
	Equivalent Code Nil	

Abbreviations: T - Theory, P - Practical

## AWARD OF CERTIFICATION

The ITE Skills Certificate in Shielded Metal Arc Welding is awarded to candidates who achieve a minimum aggregate score of 60% for both theory and practical assessments.

## VENUE

ITE College Central, ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) This *ISC* course will be offered only if there is sufficient demand to form a class. Where there is insufficient enrolment, the class/course will be cancelled and a full refund will be given to the affected students.

# LOCATION OF ITE HEADQUARTERS AND COLLEGES

## ❖ ITE HEADQUARTERS

2 Ang Mo Kio Drive  
Singapore 567720

**Customer & Visitor Centre**

**Tel: 1800 - 2222 111**

**Fax: 6590 2578**

**Email: [training@ite.edu.sg](mailto:training@ite.edu.sg)**

**[www.ite.edu.sg](http://www.ite.edu.sg)**

## ❖ ITE COLLEGE CENTRAL

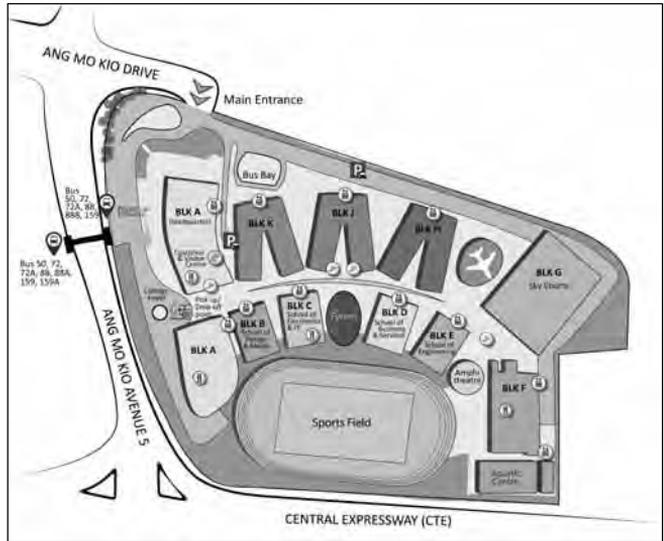
2 Ang Mo Kio Drive  
Singapore 567720

**Customer & Visitor Centre**

**Tel: 6590 2211**

**Fax: 6590 2578**

**[www.ite.edu.sg/colleges/ite-college-central](http://www.ite.edu.sg/colleges/ite-college-central)**



### How To Get There

- Nearest MRT Station: Ang Mo Kio (NS16) and Yio Chu Kang (NS15)
- Bus Services to ITE Headquarters and ITE College Central  
SBS Transit: 50, 72, 88 and 159 (alight along Ang Mo Kio Avenue 5)  
45 (alight along Ang Mo Kio Avenue 10)

## ❖ ITE COLLEGE EAST

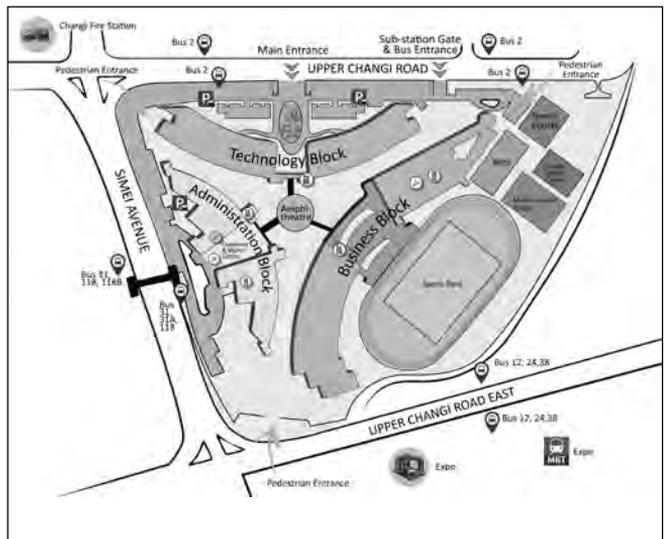
10 Simei Avenue  
Singapore 486047

**Customer & Visitor Centre**

**Tel: 6590 2262**

**Fax: 6544 9111**

**[www.ite.edu.sg/colleges/ite-college-east](http://www.ite.edu.sg/colleges/ite-college-east)**



### How To Get There

- Nearest MRT Station : Expo (CG1/DT35)
- Bus Services to ITE College East  
Go-Ahead: 118 (alight along Simei Avenue)  
2 (alight along Upper Changi Road)  
12 (alight along Upper Changi Road East)  
SBS Transit: 31 (alight along Simei Avenue)  
24, 38 (alight along Upper Changi Road East)





## CET STUDENT FEEDBACK FORM

This form may take you 5 to 15 minutes to complete. Please hand in the completed form to the CET Supervisor or the CET Manager at the College where you are studying. Alternatively, you may send the form to CET Division at 2 Ang Mo Kio Drive, Singapore 567720 or email your feedback to CET Division at *idt@ite.edu.sg*. Thank you.

### **Student Particulars & Course Information**

<b>Name:</b>	
<b>Email Address:</b>	<b>Tel:</b>
<b>Course:</b>	<b>College:</b>

### **Feedback**

Date Submitted: \_\_\_\_\_

Please attach additional sheets if there is insufficient space for your feedback.

**Thank you for your feedback**









