News Release No. 01/18

ITE Introduces Three New *Higher Nitec* Courses to Enhance Skills-Based Career Progression Pathways for Students

To help students deepen their skills and contribute effectively in a skills-based economy, the Institute of Technical Education (ITE) will be offering **three new** *Higher Nitec* courses in **Robotics & Smart Systems**, **Pastry & Baking**, and **Automotive Engineering** from April 2018. These courses have been developed to equip students with deeper skills and knowledge to take on higher-level jobs of the industry.

Supporting Skills Deepening across Multiple Sectors

As robots become increasingly deployed across both industrial and service sectors, there is a need for robotics talents who can programme and work comfortably with robots. The ***Higher Nitec* in Robotics & Smart Systems** course trains students to be Robot Coordinators who help to assemble, programme and service robots used in the industrial, healthcare, logistics, and service sectors.

Similarly, the evolving pastry and baking industry has increased the need for pastry cooks/bakers to take on roles such as designing menus and creating new products to engage customers. The ***Higher Nitec* in Pastry & Baking** course trains students to acquire a deeper knowledge of pastry and baking techniques for enhanced career development opportunities.

Finally, to meet strong demands for skilled Senior Technicians in the automotive industry, the ***Higher Nitec* in Automotive Engineering** course trains students to perform diagnostics and repair of complex systems in modern vehicles.

More information on the new *Higher Nitec* courses to be offered in 2018 can be found in **_Annex A_**. Details on the full-time *Higher Nitec* courses in 2018 for GCE 'O' Level holders and their entry requirements can be found in **_Annex B_**.

Application Procedures

GCE 'O' Level school leavers who are interested in applying for ITE's full-time *Higher Nitec* or *Nitec* courses, including Traineeship programmes, can refer to the following chart for more details.

Course Type	Application Details	Dates
Full-time *Higher Nitec* courses	GCE 'O' Level applicants may submit their applications via the MOE-JAE website at: https://www.moe.gov.sg/admissions/jae	**Fri, 12 Jan 2018 (from 3pm)** to **Wed, 17 Jan 2018 (4pm)**
Full-time *Nitec* courses	GCE 'O' Level applicants may submit their application via the ITE website at: www.ite.edu.sg	**Fri, 12 Jan 2018 (from 3pm)** to **Tue, 16 Jan 2018 (5pm)**
Nitec courses under Traineeship Programme		**Fri, 12 Jan 2018 (from 3pm)** to **Wed, 31 Jan 2018 (5pm)**
Higher Nitec courses under Traineeship Programme	Applicants are to apply in person at the Customer & Visitor Centre at ITE Headquarters (Block A, Level 2, 2 Ang Mo Kio Drive, Singapore 567720)	**Fri, 12 Jan 2018 (from 3pm)** to **Thu, 29 Mar 2018 (5pm)**
ITE Skills Certification Courses under Traineeship Programme		

For more information, please contact:

Mr Hans Yeo
Corporate & Media Relations Officer
Tel: 6590 2040 (O) / 9759 7389 (HP)
Email: hans_h_z_yeo@ite.edu.sg

Released on: 11 January 2018

About ITE

The Institute of Technical Education (ITE) is a post-secondary education institution established in 1992 under the Ministry of Education. As a principal provider of career and technical education, and a key developer of national occupational skills certification and standards, ITE's Mission is to create opportunities for students and adult learners to acquire skills, knowledge and values for employability and lifelong learning. ITE's Vision is to be A Trailblazer in Career and Technical Education. Our Values are Integrity, Teamwork, Excellence and Care. ITE comprises the ITE Headquarters and three ITE Colleges - College Central, College East and College West.

HIGHER NITEC IN ROBOTICS & SMART SYSTEMS

Overview

In this course, students will be equipped with hands-on training, skills and knowledge to perform the setup, installation, programming, and calibration of robotics and smart systems used in the industrial and service sectors.

Course Outline

Upon completion of the course, students would be able to:

- Install and programme industrial and collaborative robots
- Set up electrical control systems that include analogue and digital components
- Control and navigate Automated Guided Vehicles (AGVs)
- Design and produce end effectors using 3D printing
- Configure and test the robot vision system
- Programme microcontroller for autonomous mobile robots

Entry Requirements

3 GCE 'O' Passes

- **Grade 1-8** in English Language
- **Grade 1-7** in Mathematics (Elementary/Additional)
- **Grade 1-8** in one of the following subjects:

  [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)]

In addition to the above academic requirements, applicants must be free from colour appreciation deficiency.

Duration and Venue

2 years at ITE College Central

Projected Training Places

There will be a total of 40 places per year.

Job Opportunities & Career Prospects

Graduates of the *Higher Nitec* in Robotics & Smart Systems course may be employed as Robotics Technicians to install, programme, service and maintain robots in the industrial, healthcare, logistics and service sectors.

Progression Pathways

Higher Nitec in Robotics & Smart Systems graduates may apply for progression to the first-year of a related diploma course at the Polytechnics.

They may also apply for progression to the Technical Engineer Diploma in Machine Technology course or Technical Engineer Diploma in Automotive Engineering course conducted by ITE in collaboration with Ministry of Education, Youth and Sports (MEYS), Baden-Württemberg, Germany.

HIGHER NITEC IN PASTRY & BAKING

Overview

In this course, students will be trained to produce a range of artisanal and decorative breads, yeast-raised pastries, entremets, decorative showpieces, and contemporary-plated desserts, as well as create nutritious menus and recipes that meet the requirements of customers. They will also do a six-month internship at one of the renowned pastry and bakery establishments that ITE partners with.

Course Outline

Upon completion of the course, students would be able to:

- Prepare mise en place for pastry and baking products
- Prepare basic baking ingredients
- Produce a range of artisan and decorative bread, yeast-raised pastry products, and entremets
- Prepare a range or chocolate and sugar showpieces/decorations
- Prepare contemporary plated desserts
- Analyse pastry and baking products
- Create menus and recipes

Entry Requirements

Applicants must have completed the *Nitec* in Pastry & Baking course, with a minimum Grade Point Average of 2.8 (inclusive of CCA bonus points).

Duration and Venue

1 year at ITE College West

Projected Training Places

There will be a total of 40 places per year.

Job Opportunities & Career Prospects

Graduates of the *Higher Nitec* in Pastry & Baking course may be employed as a Pastry Cook/Baker in hotels, restaurants and bakeries. Those with work experience and good performance may be promoted to supervisory positions, such as Assistant Pastry Chef/Head Baker.

Progression Pathways

Higher Nitec in Pastry & Baking graduates may apply for progression to the first-year of a related diploma course at the Polytechnics.

They may also apply for progression to the Technical Diploma in Culinary Arts course conducted by ITE in collaboration with Institut Paul Bocuse, France.

HIGHER NITEC IN AUTOMOTIVE ENGINEERING

Overview

In this course, students will be equipped with the skills and knowledge to service, inspect, repair, and diagnose systems for petrol, diesel, hybrid and other powered vehicles.

Course Outline

Upon completion of the course, students would be able to:

- Perform engine systems diagnostics
- Perform electrical systems diagnostics
- Perform chassis diagnostics
- Perform driveline diagnostics

Entry Requirements

Applicants must have completed at least one of the following *Nitec* courses, with a minimum Grade Point Average of 2.3 (inclusive of CCA bonus points):

- *Nitec* in Automotive Technology (Heavy Vehicles)
- *Nitec* in Automotive Technology (Light Vehicles)
- *Nitec* in Aerospace Avionics
- *Nitec* in Aerospace Technology
- *Nitec* in Mechanical Technology
- *Nitec* in Mechatronics
- *Nitec* in Rapid Transit Technology
- *Nitec* in Electrical Technology (Power & Control)
- *Nitec* in Electronics, Computer Networking & Communications

Duration and Venue

2 years at ITE College West

Projected Training Places

There will be a total of 40 places per year.

Job Opportunities & Career Prospects

Graduates of the *Higher Nitec* in Automotive Engineering course may be employed as Senior Technicians, Team Leaders and Senior Vehicle Inspectors at fleet maintenance workshops, service garages, franchised motor dealers, vehicle inspection centres, and government agencies.

Progression Pathways

Higher Nitec in Automotive Engineering graduates may apply for progression to the first-year of a related diploma course at the Polytechnics. They may also apply for progression to the Technical Engineer Diploma in Automotive Engineering course conducted by ITE in collaboration with Ministry of Education, Youth and Sports (MEYS), Baden-Württemberg, Germany.

FULL-TIME *HIGHER NITEC* COURSES FOR GCE 'O' LEVEL HOLDERS AND ENTRY REQUIREMENTS

Course Duration: 1 ½ - 2 years

School of Applied & Health Sciences	Course Title	Minimum Entry Requirements
	Higher Nitec in: • **Biotechnology** • **Chemical Technology**	3 GCE 'O' Passes • **Grade 1-8** in English Language • **Grade 1- 7** in Mathematics (Elementary/Additional) • **Grade 1-8** in one of the following subjects: - 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)
	Higher Nitec in Paramedic & Emergency Care	3 GCE 'O' Passes • **Grade 1-8** in English Language and one other subject • **Grade 1- 7** in Mathematics (Elementary/Additional) **Note:** * *To be eligible for selection, candidates must have completed the Emergency Medical Technician course/Medical Orderly/Combat*

		Medic Specialist course administered by SCDF or SAF <u>and</u> possess minimum 1 year relevant work experience in emergency pre-hospital setting.
School of Business & Services	*Higher Nitec* in: • **Accounting** • **Banking Services** • **Event Management** • **Human Resource & Administration** • **International Logistics (previously known as** *Higher Nitec* **in Logistics for International Trade)** • **Maritime Business** • **Retail & Online Business (previously known as** *Higher Nitec* **in Retail Merchandising)** • **Service Management** • **Sport Management**	3 GCE 'O' Passes • **Grade 1-7** in English Language and one other subject • **Grade 1- 8** in Mathematics (Elementary/Additional) **or** Principles of Accounts **Note:** * *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*
	Higher Nitec in Early Childhood Education	3 GCE 'O' Passes • **Grade 1-6** in English Language and two other subjects **Note:** * *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*
	Higher Nitec in: • **Beauty & Spa Management** • **Leisure & Travel Operations** • **Passenger Services**	3 GCE 'O' Passes • **Grade 1-7** in English Language and two other subjects **Note:** * *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*
School of Design &	*Higher Nitec* in: • **Filmmaking**	3 GCE 'O' Passes • **Grade 1-7** in English

Media	(Cinematography) • **Performance Production**	Language and one other subject • **Grade 1- 8** in Mathematics (Elementary/Additional) **or** Principles of Accounts **<u>Note:</u>** *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*
	***Higher Nitec* in Interactive Design**	3 GCE 'O' Passes • **Grade 1-8** in English Language and one other subject • **Grade 1- 7** in Mathematics (Elementary/Additional) **or** Principles of Accounts **<u>Note:</u>** *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*
	***Higher Nitec* in Space Design Technology**	3 GCE 'O' Passes • **Grade 1-8** in English Language • **Grade 1- 7** in Mathematics (Elementary/Additional) • **Grade 1-8** in one of the following subjects: - 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)
	Higher Nitec in Visual Merchandising	3 GCE 'O' Passes • **Grade 1-7** in English Language • **Grade 1- 8** in two other subjects **Note:** * *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*
School of Electronics & Info-comm Technology	*Higher Nitec* in: • **Broadcast & Media Technology** • **Business Information Systems** • **Cyber & Network Security** • **Electronics Engineering** • **Games Art & Design** • **Games Programming & Development** • **IT Applications Development (previously known as *Higher Nitec* in e-Business Programming)** • **IT Systems & Networks (previously known as *Higher Nitec* in Information Technology)** • **Security System Integration**	3 GCE 'O' Passes • **Grade 1-8** in English Language • **Grade 1- 7** in Mathematics (Elementary/Additional) • **Grade 1-8** in one of the following subjects: - 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)

School of Engineering	**Higher Nitec** in:	3 GCE 'O' Passes
	• **Civil & Structural Engineering Design** • **Electrical Engineering** • **Engineering with Business** • **Facility Management** • **Facility Systems Design** • **Landscape Management & Design** • **Marine & Offshore Technology** • **Marine Engineering** • **Mechanical Engineering** • **Mechatronics Engineering** • **Offshore & Marine Engineering Design** • **Process Plant Design** • **Rapid Transit Engineering** • **Robotics & Smart Systems (NEW)**	• **Grade 1-8** in English Language • **Grade 1- 7** in Mathematics (Elementary/Additional) • **Grade 1-8** in one of the following subjects: - 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)
School of Hospitality	**Higher Nitec** in Hospitality Operations	3 GCE 'O' Passes • **Grade 1-7** in English Language and two other subjects **Note:** * *To be eligible for selection, candidates must have sat for Mathematics (Elementary/Additional)*