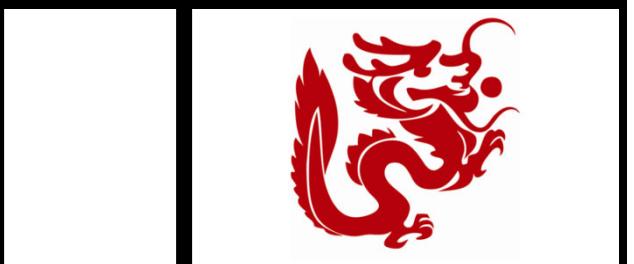


# Sec 2 Streaming Talk 2021

## Normal Technical Course





# Outline of Presentation

- Post-Secondary Options
- Sec 3 Subject Combinations 2021
- Mobile Robotics, Food Science and Elements of Business Studies- a sharing
- Streaming Process and considerations
- Q & A



# VISION

Gessians of  
Excellence  
Standing &  
Significance





# MISSION

Nurturing the  
best in each &  
Striving ever  
onward

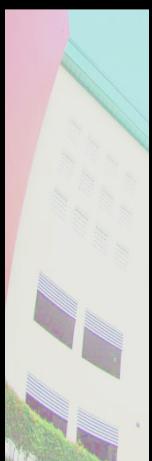




# VALUES

**Integrity** I  
**Compassion** Can  
**Resilience** Really  
**Discipline** Do  
**Respect** what's Right

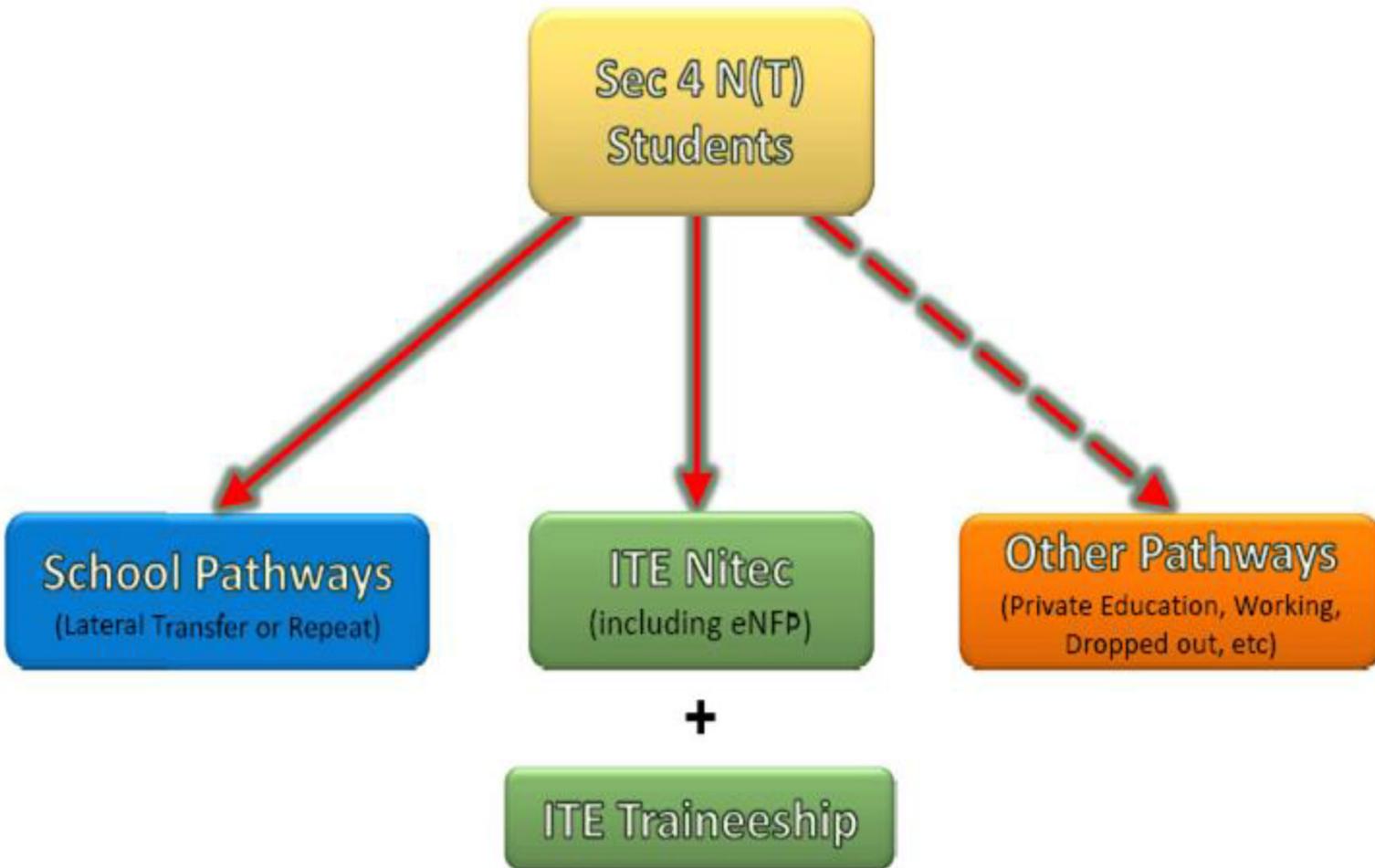




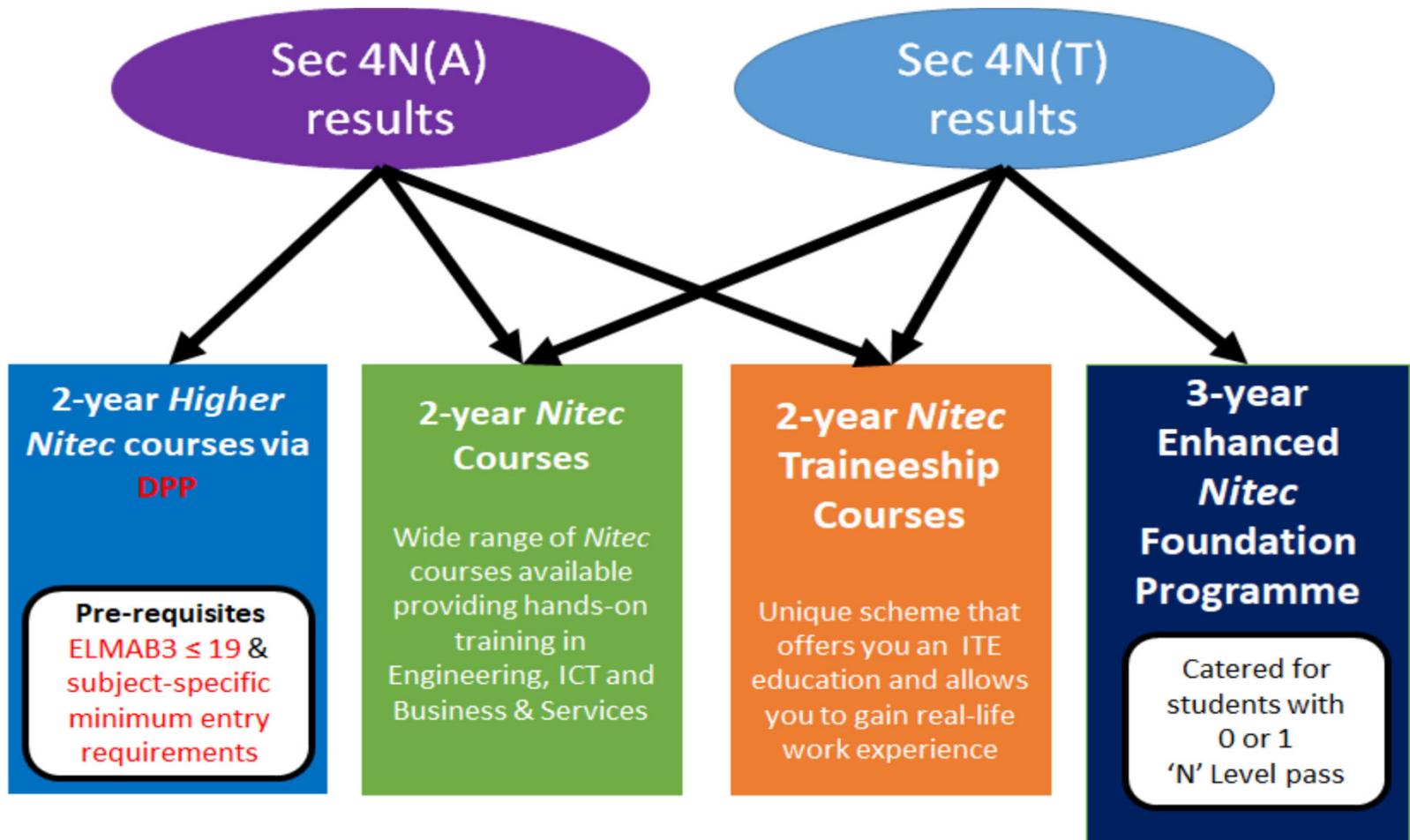
begin WITH  
THE end IN  
mind

A black silhouette of a feather quill pen pointing to the right, positioned below the main text.

# Pathways for NT Stream

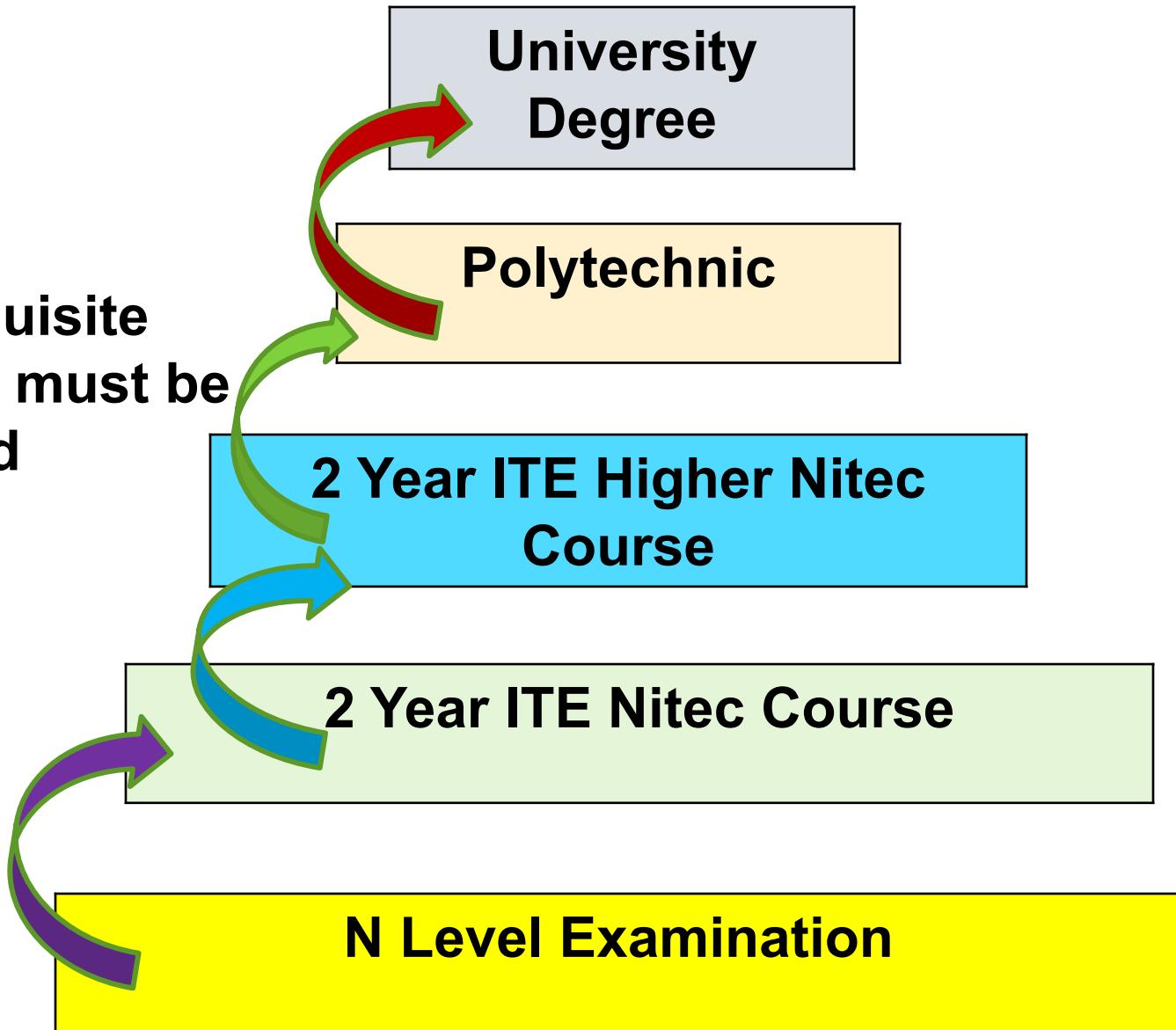


# Institute of Technical Education (ITE)

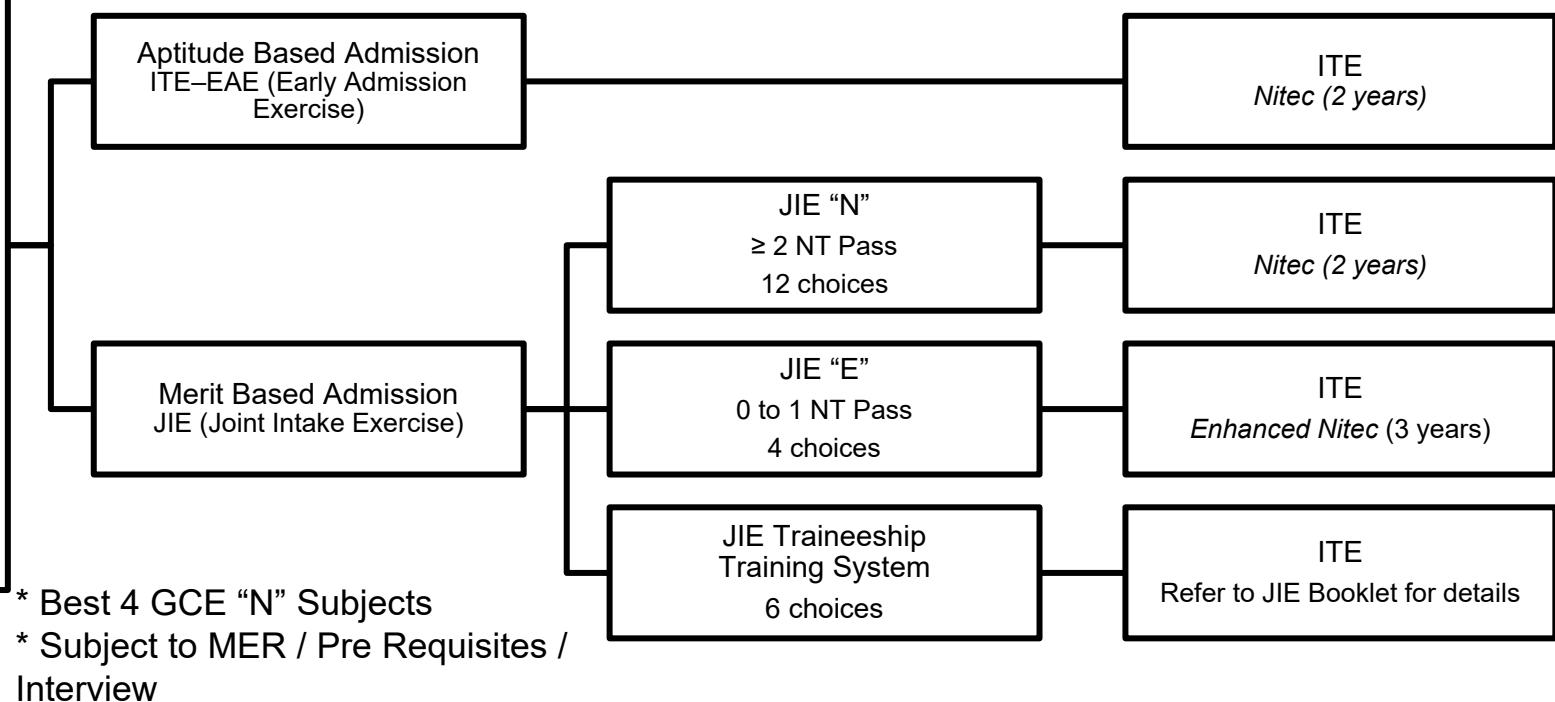


# Students in NT stream

**Pre-requisite  
Grades must be  
attained**



## Sec 4(NT)



NT Grade	ITE Aggregate
A	1
B	2
C	3
D	4
U	5

NA Grade	ITE Aggregate
1, 2	1
3	2
4	3
5	4
U	5

# Institute of Technical Education (ITE)

## Bonus Points



The table below provides details for the computation of bonus points available. Please note that these bonus points are not taken into account when considering whether applicants are eligible for courses. The bonus points will only come into effect when the applicant has been deemed eligible and is being considered for posting based on merit.

Types of Bonus Points	Number of Bonus Points Awarded
For applicants with the following CCA grades:  a) Excellent or Grades of A1 – A2 b) Good or Grades of B3 – C6	2 points 1 point
Applicants with GCE ‘N (Academic)’ level grades of 1 to 5 for pre-requisite subjects (e.g. Mathematics, English and Science) for the courses applied for.	2 points for each pre-requisite subject, up to a maximum of 4 points for the course applied.



# **MINIMUM ENTRY REQUIREMENTS**

**Some possible examples include:**

**3 GCE 'N' Passes (Grade A-D or 1-5)**

**in English Language, Mathematics and one other subject**

**in Mathematics or Science and two other subjects.**

**in English Language and two other subjects**

**in Mathematics and two other subjects**

**Completed N-level**

# How are Nitec Courses ITE Aggregate Point calculated?

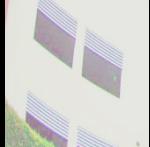
NT Grade	ITE Aggregate Points
A	1
B	2
C	3
D	4
U	5

NA Grade	ITE Aggregate Points
1,2	1
3	2
4	3
5	4
U	5

**CoP = Aggregate of Best 4 Subjects**

## Bonus Points

- 2 pts deducted for CCA Distinction Grades (A1 & A2)
- 1 pt deducted for CCA Pass Grades (Grades B3 – C6)
- For NA students, pass any pre-requisite subject(s), e.g. EL, Math or Science, deduct 2 pts up to max of 4 pts



# 3 ITE Campuses



## SCHOOL OF APPLIED & HEALTH SCIENCES

ONLY AT ITE  
COLLEGE EAST



<b>Nitec Course</b>	<b>Minimum Entry Requirements</b>
Applied Food Science	<b>3 GCE 'N' Level Passes:</b> Grade A-D or Grade 1-5 in Mathematics or Science** and two other subjects
Chemical Process Technology	<b>OR</b>
Community Care & Social Services	<b>2 GCE 'O' Level Grades:</b> Grade 1-8 in any two subjects
Opticianry	<b>Note:</b> <i>**In lieu of Science, Mobile Robotics and Smart Electrical Technology subjects can be used for admission to these courses</i>
Nursing	<b>3 GCE 'N' Level Passes:</b> Grade A-D or Grade 1-5 in English Language, Mathematics and one other subject <b>OR</b> <b>2 GCE 'O' Level Grades:</b> Grade 1-8 in any two subjects

# **SCHOOL OF BUSINESS & SERVICES**



## SCHOOL OF BUSINESS & SERVICES

Nitec Course	College			Minimum Entry Requirements
	Central	East	West	
Business Administration	✓	✓	✓	<b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in English Language and two other subjects <b>OR</b> <b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects
Business Services	✓	✓	✓	
Fitness Training	✓	✓	✓	
Floristry	✓			
Travel & Tourism Services			✓	
Beauty & Wellness		✓		
Hair Fashion & Design		✓		
Logistics Services		✓		
Retail Services	✓	✓	✓	
				<b>Completed GCE 'N' or GCE 'O' Level</b>

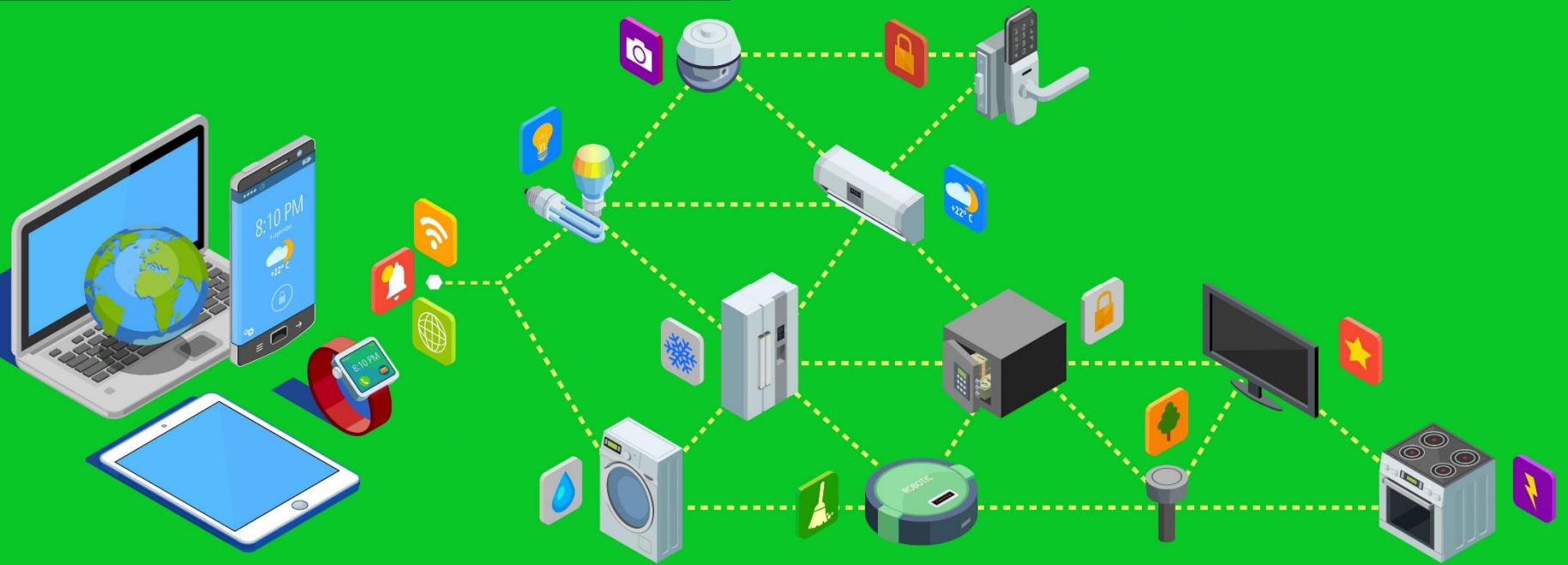
# SCHOOL OF DESIGN & MEDIA

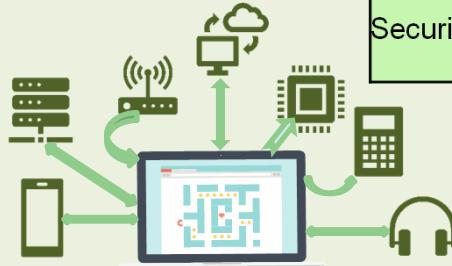
ONLY AT ITE  
COLLEGE  
CENTRAL



<b>Nitec Course</b>	<b>Minimum Entry Requirements</b>
Architectural Technology	<p><b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in Mathematics and two other subjects</p> <p><b>OR</b></p> <p><b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects</p>
Fashion Apparel Production & Design	<p><b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in Mathematics or Science** and two other subjects</p> <p><b>OR</b></p> <p><b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects</p>
Video Production	<p><b>Note:</b></p> <p><i>** In lieu of Science, Mobile Robotics and Smart Electrical Technology subjects can be used for admission to these courses</i></p>
Digital Animation	<b>Completed GCE 'N' or GCE 'O' Level</b>
Product Design	
Visual Communication	<p><b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in English Language and two other subjects</p> <p><b>OR</b></p> <p><b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects</p>

# **SCHOOL OF ELECTRONICS & INFO-COMM TECHNOLOGY**





Nitec Course	College			Minimum Entry Requirements
	Central	East	West	
Electronics, Computer Networking & Communications	✓	✓	✓	<b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in Mathematics or Science** and two other subjects  <b>OR</b>  <b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects
Electronics & Internet of Things	✓			
Infocomm Technology	✓	✓	✓	<i>Note:</i> **In lieu of Science, Mobile Robotics and Smart Electrical Technology subjects can be used for admission to these courses
Microelectronics	✓	✓	✓	
Web Applications		✓		
Security Technology				<b>Completed GCE 'N' or GCE 'O' Level</b>

**SCHOOL OF ENGINEERING**



## SCHOOL OF ENGINEERING

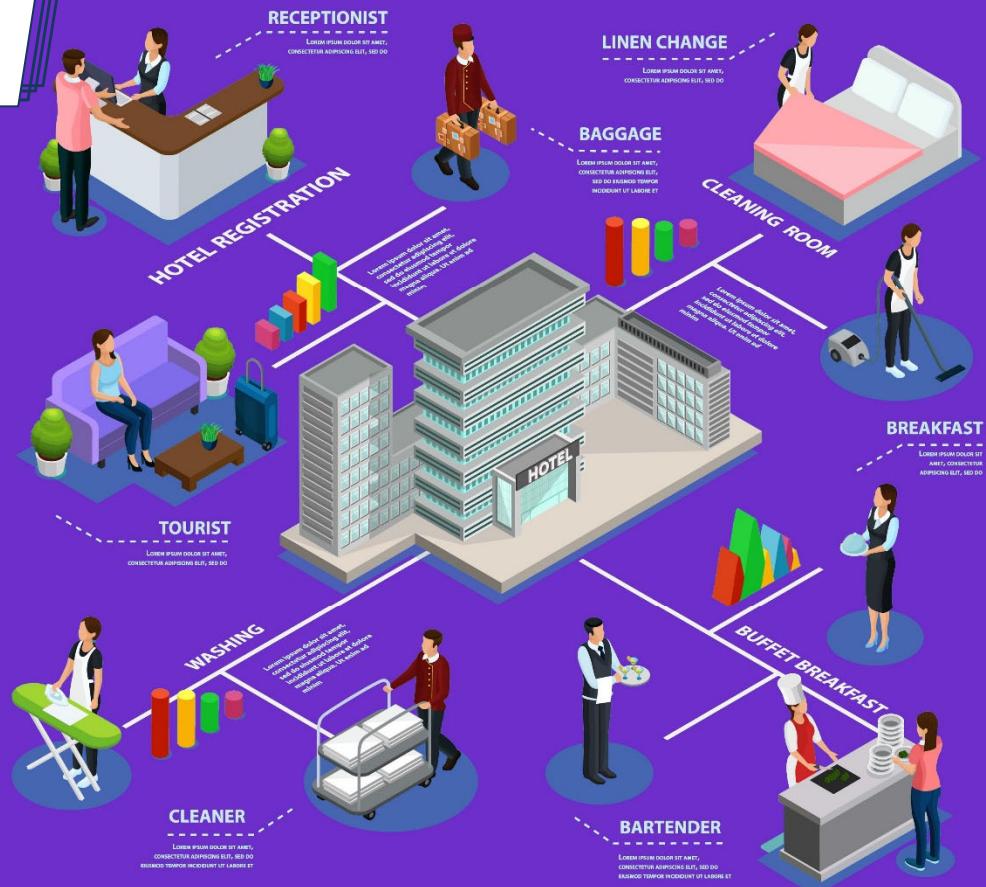
Nitec Course	College			Minimum Entry Requirements
	Central	East	West	
Aerospace Avionics	✓			
Aerospace Technology	✓			
Electrical Technology (Lighting & Sound)		✓	✓	<b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in Mathematics and two other subjects <b>OR</b> <b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects
Electrical Technology (Power & Control)		✓	✓	
Aerospace Machining Technology	✓			<b>3 GCE 'N' Level Passes:</b> Grade A–D or Grade 1–5 in Mathematics or Science** and two other subjects <b>OR</b> <b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects
Digital & Precision Engineering	✓			
Mechatronics & Robotics	✓		✓	
Rapid Transit Technology			✓	<b>Note:</b> **In lieu of Science, Mobile Robotics and Smart Electrical Technology subjects can be used for admission to these courses

## SCHOOL OF ENGINEERING

Nitec Course	College			Minimum Entry Requirements
	Central	East	West	
Automotive Technology			✓	
Built Environment (Mechanical & Electrical Services)		✓	✓	
Built Environment (Vertical Transportation)	✓	✓	✓	Completed GCE 'N' or 'O' Level
Mechanical Technology		✓		
Urban Greenery & Landscape		✓		

# SCHOOL OF HOSPITALITY

ONLY AT ITE  
COLLEGE WEST



<i>Nitec Course</i>	<b>Minimum Entry Requirements</b>
Hospitality Operations	<b>3 GCE 'N' Level Passes:</b> Grade A-D or Grade 1-5 in English Language and two other subjects
Pastry & Baking	<b>OR</b> <b>2 GCE 'O' Level Grades:</b> Grade 1–8 in any two subjects
Western Culinary Arts	
Asian Culinary Arts	<b>Completed GCE 'N' or GCE 'O' Level</b>

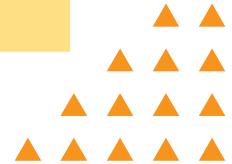




## FULL-TIME 2-YEAR NITEC COURSES AGGREGATE POINTS

Based on best 4 GCE N' subjects, including pre-requisites and bonus points

Nitec courses	Aggregate points
Business Administration (CC)	6
Business Administration (CE)	
Business Administration (CW)	
Business Services (CC)	
Fitness Training (CC)	7
Hospitality Operations (CW)	
Infocomm Technology (CC)	
Business Services (CW)	
Aerospace Avionics (CC)	8
Web Applications (CC)	

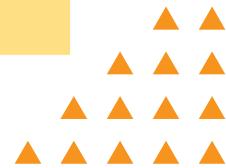




## FULL-TIME 2-YEAR NITEC COURSES AGGREGATE POINTS

Based on best 4 GCE N' subjects, including pre-requisites and bonus points

Nitec courses	Aggregate points
Retail Services (CC)	9
Business Services (CE)	
Visual Communication (CC)	
Electrical Technology (Lighting & Sound) (CW)	
Applied Food Science (CE)	
Logistics Services (CE)	10
Retail Services (CW)	
Digital Animation (CC)	11
Electronics, Computer Networking & Communications (CC)	
Video Production (CC)	
Aerospace Technology (CC)	12
Electrical Technology (Lighting & Sound) (CE)	
Chemical Process Technology (CE)	

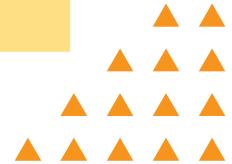




## FULL-TIME 2-YEAR NITEC COURSES AGGREGATE POINTS

Based on best 4 GCE N' subjects, including pre-requisites and bonus points

Nitec courses	Aggregate points
Automotive Technology (CW)	
Mechanical Technology (CC)	
Security Technology (CW)	
Mechatronics & Robotics (CC)	
Travel & Tourism Services (CW)	
Nursing (CE)	
Architectural Technology (CC)	
Interior & Exhibition Design (CC)	
Electronics & Internet of Things (CC)	
Fashion Apparel Production & Design (CC)	13





## FULL-TIME 2-YEAR NITEC COURSES AGGREGATE POINTS

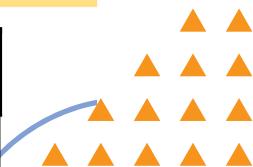
Nitec courses	Aggregate points
Retail Services (CE)	
Fitness Training (CE)	
Opticianry (CE)	
Rapid Transit Technology (CW)	14
Mechanical Technology (CW)	
Fitness Training (CW)	
Floristry (CC)	
Pastry & Baking (CW)	
Electrical Technology (Power & Control) (CW)	
Aerospace Machining Technology (CC)	
Community Care & Social Services (CE)	
Electronics, Computer Networking & Communications (CE)	
Infocomm Technology (CW)	15
Microelectronics (CC)	





## **FULL-TIME 2-YEAR NITEC COURSES AGGREGATE POINTS**

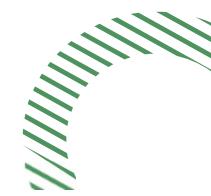
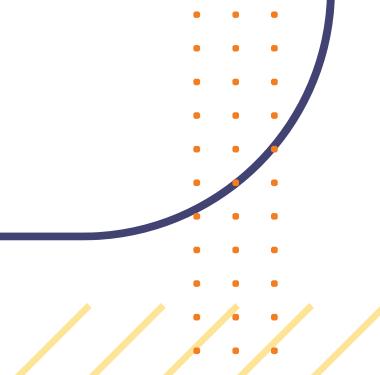
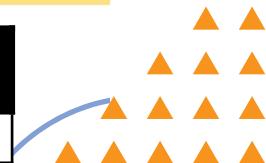
<b>Nitec courses</b>	<b>Aggregate points</b>
Built Environment (Mechanical & Electrical Services) (CE)	16
Product Design (CC)	
Electrical Technology (Power & Control) (CE)	
Digital & Precision Engineering (CC)	
Electronics, Computer Networking & Communications (CW)	
Infocomm Technology (CE)	
Mechatronics & Robotics (CW)	
Mechatronics & Robotics (CC)	
Built Environment (Vertical Transportation) (CE)	17
Urban Greenery & Landscape (CE)	
Western Culinary Arts (CW)	
Web Applications (CE)	
Web Applications (CW)	





## **FULL-TIME 2-YEAR NITEC COURSES AGGREGATE POINTS**

<b>Nitec courses</b>	<b>Aggregate points</b>
Hair Fashion & Design (CE)	18
Beauty & Wellness (CE)	19
Asian Culinary Arts (CW)	
Built Environment (Mechanical & Electrical Services)(CE)	20
Mechanical Technology (CE)	



# Promotional Criteria for Sec 2 NT



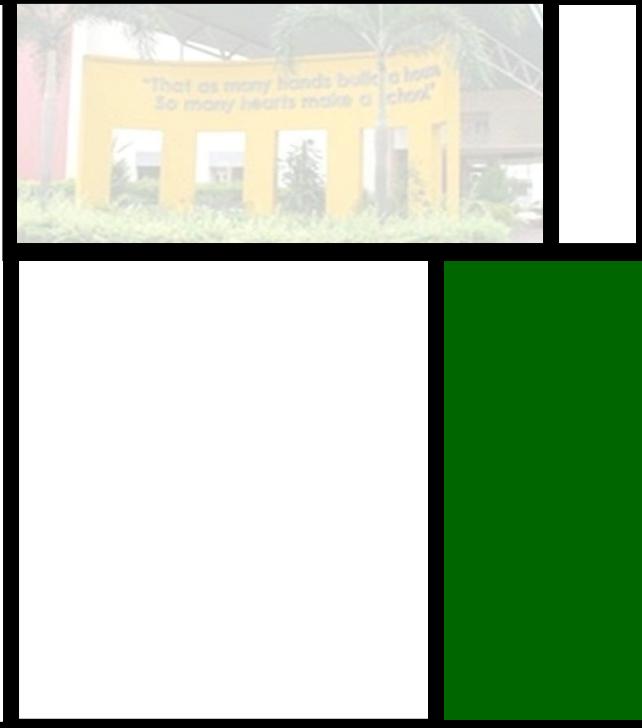
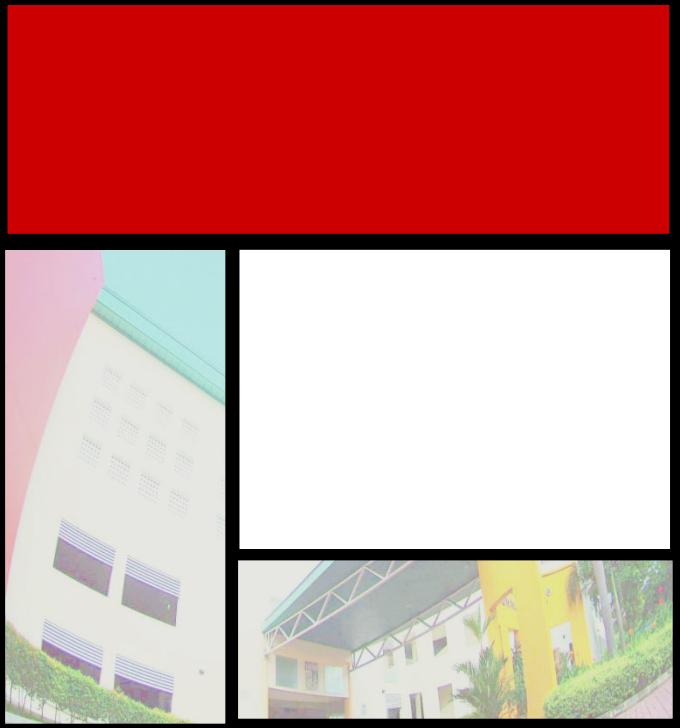
- Promotion to Sec 3NT

Pass ( Grade D or better overall grade ) in two subjects, one of which must be English Language or Mathematics

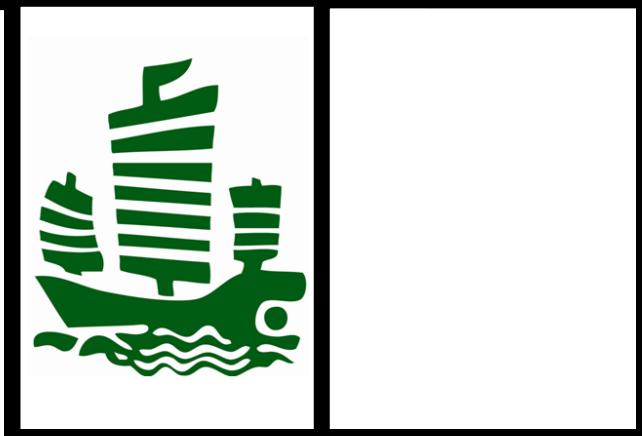
- Lateral Transfer to Sec 2 NA

Minimum of 70% in the overall percentage of all subjects combined





# **Sec 3 Subject Combinations 2022 Normal Technical Stream**



**GAN ENG SENG SCHOOL**  
**Possible 2022 SEC 3 NORMAL TECHNICAL SUBJECT COMBINATIONS**

	Course A	Course B	Course C	Course D	Course E
Subject 1	English Language	English Language	English Language	English Language	<b>English Language</b>
Subject 2	Basic Mother Tongue	Basic Mother Tongue	Basic Mother Tongue	Basic Mother Tongue	<b>Basic Mother Tongue</b>
Subject 3	Mathematics	Mathematics	Mathematics	Mathematics	<b>Mathematics</b>
Subject 4	Computer Applications (CPA)	Computer Applications (CPA)	Computer Applications (CPA)	Computer Applications (CPA)	<b>Computer Applications (CPA)</b>
Subject 5	Science	Science	Science	Science	<b>Science</b>
Subject 6	<b>Electives:</b>  Elements of Business Skills (EBS)	<b>Electives:</b>  Design & Technology (D&T)	<b>Electives:</b>  Mobile Robotics (MR)	<b>Electives:</b>  Music	<b>Electives:</b>  Food Studies

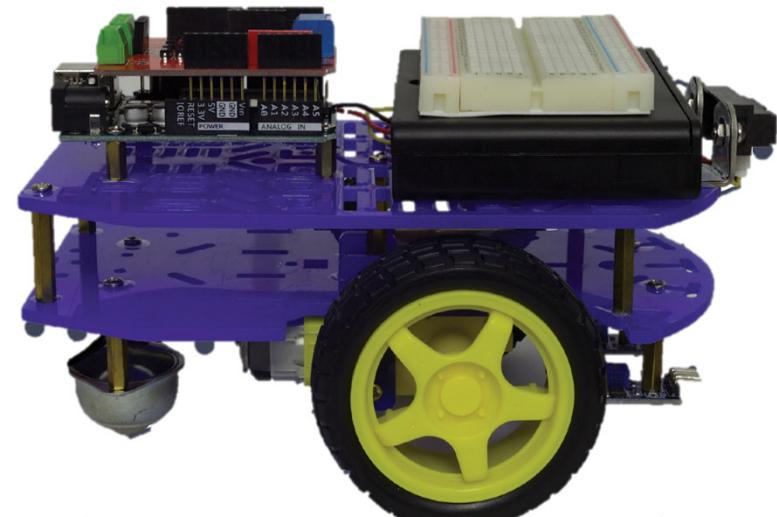




THE MOBILE ROBOT THAT  
YOU WILL BUILD  
IN YEAR 4 CAN BE  
CONFIGURED AS A LINE-  
FOLLOWER

# Mobile robotics

## moe-ite applied subject for NT STUDENTS





# What is mobile robotics?

- mobile robot is a robot that has the capability to move independently around its environment. It is not fixed to one physical location.
- Basic functional blocks of a mobile robot



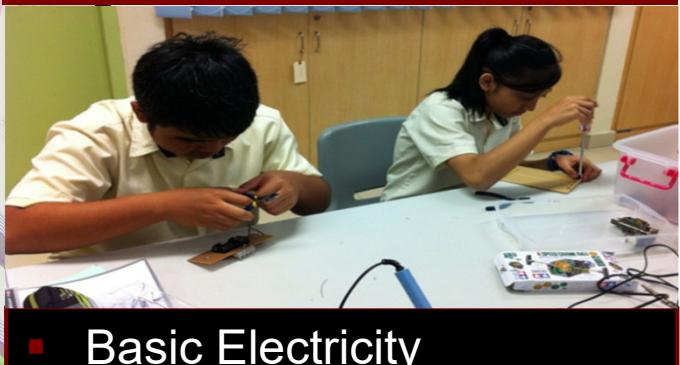
3 hrs per  
week

# Mobile Robotics (MR)



Aims to provide students with the experience of developing their own mobile robots and equip them with basic knowledge and skills in electrical, electronics, mechanical design and intelligent control.

## *Electricity and Electronics*



- Basic Electricity
- Basic and Digital Electronics

## *Robotics*



### *Related Nitec Courses*

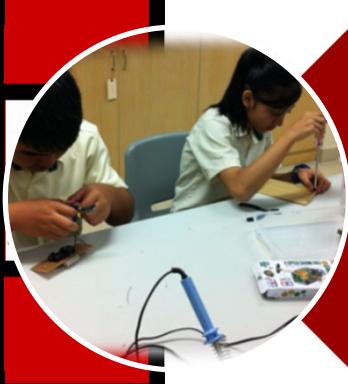
- Mechatronics
- Rapid Transit Technology
- Mechanical Technology
- Electronics

- Mobile Robotics – Introduction
- Design
- Simple Mechanism
- Material and Practical Processes
- Integration



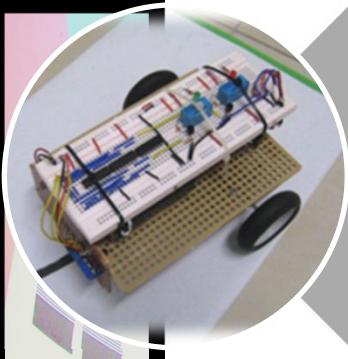
Content provided by ITE

# Mobile Robotics



## Overview

- Mobile Robotics - Introduction
- Design



## Electricity and Electronics

- Basic Electricity
- Basic and Digital Electronics
- Input-Output Device



## Robotics

- Simple Mechanism
- Material and Practical Processes
- Integration

## Assessment

Practical Assessment at End of Secondary 3 (30%)

Theory Examination (MCQ) at End of Secondary 4 (30%)

Practical Assessment at End of Secondary 4 (40%)



Content provided by ITE



# Courses where MR can be used in lieu of NT Sci/Maths for admission



<i>Nitec Course</i>	<i>School</i>
<b>Aerospace Machining Technology</b>	School of Engineering
<b>Electronics (Broadband Technology &amp; Services)</b>	
<b>Electronics (Computer &amp; Networking)</b>	School of
<b>Electronics (Display Technology)</b>	Electronics &
<b>Electronics (Instrumentation)</b>	Info-comm
<b>Electronics (Microelectronics)</b>	Technology
<b>Electronics (Mobile Devices)</b>	



# Courses where MR can be used in lieu of NT Sci/Maths for admission



<i>Nitec Course</i>	<i>School</i>
<b>Aerospace Machining Technology</b>	School of Engineering
<b>Electronics (Broadband Technology &amp; Services)</b>	
<b>Electronics (Computer &amp; Networking)</b>	
<b>Electronics (Display Technology)</b>	School of Electronics & Info-comm Technology
<b>Electronics (Instrumentation)</b>	
<b>Electronics (Microelectronics)</b>	
<b>Electronics (Mobile Devices)</b>	



Content provided by ITE



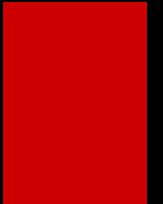
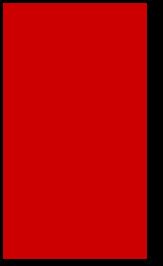


# Elements of Business Skills (EBS)



GAN ENG SENG SCHOOL  
1 Henderson Road Singapore 32561

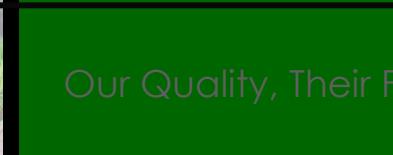




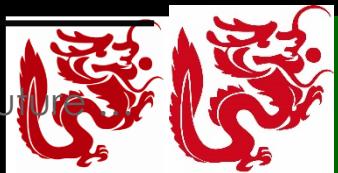
The EBS syllabus aims to provide students with the opportunity to **develop foundational business knowledge, employability skills and values** that are transferrable over different areas of work or the future.



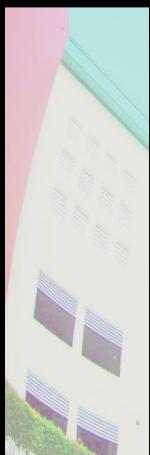
In EBS, students will be introduced to basic business concepts, focusing on marketing and customer relations in three service industries in Singapore – **travel and tourism, hospitality and retail industries**.



Our Quality, Their Future



# Scheme of Assessment (7066, First Year of Examination – 2021) – N(T) Level



Paper	Description	Marks	Overall Weighting	Duration
1 Written	<p>There will be 4 compulsory questions from Units 1 to 3 of the syllabus, comprising short response and structured questions:</p> <p>(i) with helping words;</p> <p>(ii) requiring short answers, not necessarily in complete sentences.</p>	100	60%	1 hour 30 mins
2 Coursework	<p>The coursework requires candidates to conduct a business investigation, making use of content and skills acquired from Units 1 to 4 of the syllabus.</p> <p>Candidates in a class are required to choose different businesses in the selected service industry.</p> <p>A total of 20 hours must be assigned during curriculum time to facilitate the completion of the coursework.</p>	80	40%	20 hours of curriculum time over 10 to 14 weeks



Our Quality, Their Future



# What Is the Marketing Mix?

A business needs to satisfy its target customers' needs and wants better than its competitors in order to succeed. To do this, businesses use a combination of marketing tools to attract new customers as well as retain existing ones.

These marketing tools are also known as the 4Ps of marketing:

- Product
- Price
- Place
- Promotion



▲ Fig 4.1 The marketing mix

The **marketing mix** refers to the combination of these different marketing tools to attract target customers and to rise above the competition.

It involves decisions to:

- choose the right product;
- sell it at the right price;
- make it available at the right place; and
- promote it in a way that will reach the target customers.

## BUSINESS INVESTIGATION SKILL

### 1 Gather Information

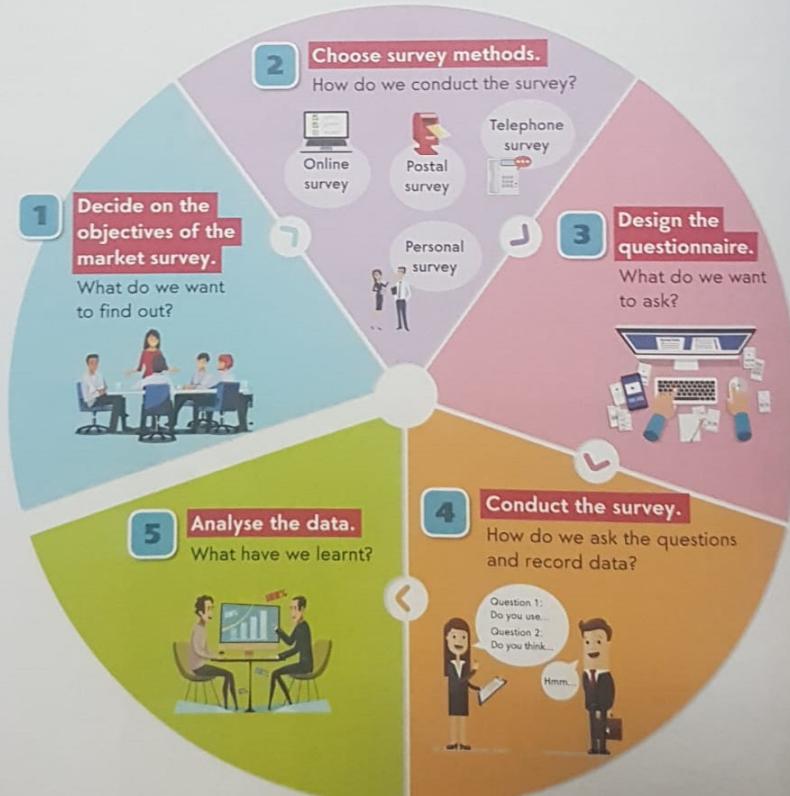
Gathering information can be carried out through conducting a survey to find out customers' preferences and buying habits, in order to make a recommendation to improve the marketing mix.

## Understand Customers' Needs and Wants

Once businesses have identified who their customers are, they can then begin to understand how to serve them better by collecting information about their needs and wants. One way to do this is by conducting a market survey, which we will discuss in this section. In Chapter 7, you will learn about other methods of gathering information.

### What Is a Market Survey?

A **market survey** is a way for businesses to gather information about their customers' preferences and buying habits, in order to make a decision on the marketing mix. The actual process of conducting a market survey in the business world is very complex; some of the steps involved are shown below.



## 2.2 What Is Hospitality?

Hospitality refers to the warm and welcoming way in which a host receives guests and takes care of their needs.

### Businesses in the Hospitality Industry

The hospitality industry refers to businesses that provide a wide range of facilities to make people feel comfortable when they are away from home. These businesses include hotels, resorts and restaurants. Their customers are known as guests.

The hospitality industry is made up of two main categories of businesses:

- Accommodation
- Food and beverage (F&B) outlets



#### Accommodation

When tourists arrive in Singapore for work or leisure, they need **accommodation**. The types of accommodation the tourists will stay in depends on their budget, personal preference and purpose of visit.

Accommodation available in Singapore includes:

- Hotels
- Serviced apartments
- Resorts
- Hostels



## What Is Customer Service?

**Customer service** refers to what businesses do for their customers so that they are happy and satisfied. Customer service takes place the moment a customer enters a shop, a restaurant or an attraction. It continues even after the customer has made a purchase and left the venue.



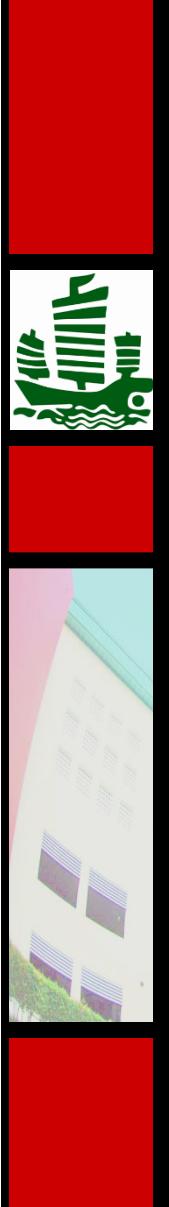
▲ Fig 6.1 Different scenarios in which customer service takes place.

#### Integrated Resorts

Integrated resorts offer a wide range of attractions and facilities. These include hotels, food and beverage outlets, retail outlets, and amusement and theme parks.

Singapore has two integrated resorts: Marina Bay Sands® Singapore and Resorts World Sentosa™.





# Possible career pathways

EBS will give students a good headstart if they are interested in pursuing a career in Singapore's retail, travel & tourism & hospitality industries.

Related ITE courses:

- Nitec in Retail Services
- Nitec in Travel & Tourism Services
- Nitec in Hospitality Operations



# EBS is suitable for students who

- Have a keen interest in business theories and concepts,
- Content heavy
- Takes initiative to research (online & offline) and investigate businesses,
- Possesses good writing skills to analyse/evaluate existing businesses and write proposals to improve the businesses





# Food Studies





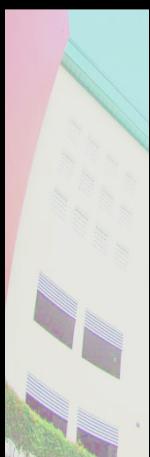
# Content Overview

- Meal planning and Meal analysis
  - Balanced diet
  - Basic nutrition
- Food Management
  - Sensory evaluation
  - Food safety and hygiene
  - Demonstration of cooking methods
- Food commodities
  - Study of main food commodities
  - Demonstration of suitable preparation and cooking practices



# N(T) Level Assessment

## Subject code: 6079



Paper	Duration No. of pages	Total	Format
1: Written paper	1.5 hours	40%	Section A: Short-answer type questions (20m) Section B: Data response type questions (28m) Section C: Structured-type questions (32m)
2: Coursework (Report)	35 hours 16 pages	60%	Background study (6m) Exploration (6m) Decision making (6m) Planning (12m) Execution (30m) Evaluation (6m)



# Related Nitec courses

Nitec Course	College
Applied Food Science	East – Simei
Asian Culinary Arts	West – Choa Chu Kang
Western Culinary Arts	West – Choa Chu Kang
Hospitality Operations	West – Choa Chu Kang
Pastry and Baking	West – Choa Chu Kang



# Which Subject Combination?



In selecting the subject combination for your child/ward, the following should be taken into consideration:

- Understanding future post-secondary options
- Realistic expectations of your child's/ward's ability to cope with the demands of the course
- Consider child's/ward's needs, interest, preferences and well-being



# Basis Of Sec 2 Streaming

Streaming is based on:

- **Merit** ( student's overall performance for 2021)

**WA1+MYE+WA2+ AA+EYE**

Term 1	Term 2	Term 3	Term 4
WA 1 (5%)	WA 2 (5%) MYE (20%)	WA 3 1(10%)	AA (10%) EYE (50%)

- Stipulated Criteria for each course
- Student's option
- Resource and Staffing



# Timeline for Streaming

<b>Form A (16 April 2021)</b>	Meet-the-Parents Session, followed by <b>Form A</b> (via Asknlearn)  <u>Objective:</u> Communicate to students and their parents on expectations and subject combinations; and to gauge course demand and aspirations
<b>Form B (28 June)</b>	Release of Report Book after Mid-Year Exam and Issue of <b>Form B</b>  <u>Objective:</u> Allow the students and parents to know their academics gap so that students can work hard on the right area(s) to meet and attain the expectations of their desired course.
<b>Form C (26 Oct)</b>	Release of Report Book after Final Term Exam and Issue of <b>Form C</b>  <u>Objective:</u> Allow students to re-select their desired course based on their overall academics performance and school available resources.
<b>Form D (2 Nov)</b>	Appeal Form (Form D) after the release of course allocation on 2 Nov 2021



# In Summary

1. Continual emphasis on English Language, Mathematics and Science, amongst other subjects.
2. Complement School's efforts in establishing good study habits
3. Coach your child in the setting & monitoring of academic and holistic development targets
4. Partner the School in supporting your child's learning
5. Every subject is a good subject
6. There are multiple pathways to achieve your child's dream





ONWARD!



