

# Prospectus

2018/2019



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# School of Applied Science

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The School offers seven courses in food, chemical and life sciences, aimed at nurturing a passion for science and research in you, and preparing you for a rewarding career in the vibrant food, F&B, healthcare, chemical and life sciences industries, as well as further studies. Our ability-driven curriculum strives to develop in you competence, character and change-readiness to enable you to stay relevant and competitive in a rapidly changing global world.

Learning at the School of Applied Science is practical, immersive and engaging. Through Problem-based Learning (PBL), the Student Internship Programme, Differential Research Programme (DRP), major projects and practicum at our learning enterprises (frozen desserts factory, animal clinic and food outlets), you will develop critical thinking as well as interpersonal and problem-solving skills that are vital for success in the dynamic global economy. A strong emphasis on hands-on applications means that you will get the opportunity to integrate and apply your knowledge and skills in a real work environment. In addition, the online delivery mode, in the form of interactive course materials and e-lectures, enables you to access online resources and learn at your own pace and convenience.

The School also encourages your participation in competitions and involvement in programmes such as the Overseas Community Projects and the Student Leadership Programme. These, together with core subjects such as Leadership: Essential Attributes & Practice (LEAP) and Communication Skills, provide our students with a holistic curriculum. To keep abreast of the latest developments, the School has carved out niche areas in applied research that contribute to the professional growth of its staff and enhance students' learning. Some of the areas of research or student projects are in Traditional Chinese Medicine, membrane technology, plant technology, proteomics, microbiology and immunology, nanotechnology, analytical services, aquaculture, environment and water technology, baking science and technology, hydroponics and applied food science and nutrition research. These research projects, often undertaken with industrial involvement, open up a common ground for multi-disciplinary technical teams to collaborate and innovate.

# Centres of Excellence

## Agilent Partner Laboratory @ TP

This Lab brings together cutting-edge chemical analytical and bio-analytical technologies from Agilent and resources from TP to help businesses, in particular those that develop, manufacture or distribute traditional medicine and food products. Chemists at this Lab are able to conduct tests to screen, detect, identify and quantify chemicals in ingredients and products at various stages of the chain – from product innovation to quality control, from trace substance screening and identification to product authentication.

## Centre for Aquaculture & Veterinary Science

The new Centre for Aquaculture and Veterinary Science (CAVS) will provide students with engaging and experiential learning in skills related to animal wellness, veterinary care and support for pet animals, research on marine and freshwater species for growth and development as well as animal model studies for biomedical research.

## Centre of Innovation for Complementary Health Products

The recently established Centre of Innovation (COI) for Complementary Health Products (CHP), is supported by SPRING Singapore under its Capability Development Scheme (Technology Innovation) - Infrastructure. The establishment of the COI is a major milestone in TP's journey of supporting the modernisation of the complementary health products industry through technology innovation. In line with the national agenda, the COI will focus on Traditional Medicine research and product development related to ageing. It will

benefit the CHP industry by providing consultancy and technical services, conducting training for the CHP workforce, and developing shared facilities and resources for CHP enterprises.

## Centre for Applied Nutrition Services (CANS)

With an integrated team of experts, this Centre provides consultancy services in food, nutrition and culinary applications to the various food and health-related industries. The Centre's facilities include the Applied Nutrition Research Facility, Glycemic Index Research Unit and the Food and Culinary Applied Research Facility.

## Centre for Renewable Resources

The School's Renewable Resources Technology capability is broadly divided into three capabilities: Green Materials, Water Technology and Biofuels. Through industry and joint research projects, the Centre for Renewable Resources aims to help companies reduce the cost of disposal or treatment of their solid waste or wastewater. At the same time, a valuable and usable product may be created in the process. This is particularly important in Singapore where resources are scarce and cost of disposal is extremely high.

## Centre for Molecular Diagnostics

The Centre for Molecular Diagnostics (CMD) is a "makerspace" serving the Surge Research and Education (SuRE) Programme, Biological Testing Domain & Biosensor Domain. It focuses on creating point-of-care (POC) diagnostics and setting testing standards. The Centre is currently growing capabilities in real-time PCR, NGS, MALDI-ToF-MS, OIA wafer/paper-based low cost diagnostics, BioDot, etc.

A key contributor to the School's Research, Innovation and Enterprise activities, the Centre also supports the SkillsFuture initiative by strengthening pre-employment training for industry, as well as continuing education training (eg in the areas of biological testing and biosensor workshops). Industry partnership and projects include: OIA Food Toxin Test Kit (DSO/MINDEF/NEA), Continuous Flow Microfluidics (DSO, EHI, NEA, SIMTech), Multiplex Diagnostic Kit for Malaria (MOE-TIF), Kidney Panel Markers & Gout (MOE-TIF), and Thermo Fisher Scientific (biological testing capability partner).

## Glycemic Index Research Unit

This facility is Singapore's first Glycemic Index Research Unit (GIRU) and is equipped to conduct *in vivo* analysis of the glycemic index (GI), insulinemic index (II), and glycemic response of various foods. The facility also offers consultancy services in the area of nutrition research, GI testing and has also the capacity to conduct nutrition intervention studies.

## KoolWerkz Learning Enterprise

An off-campus training factory for ice cream production, KoolWerkz provides a hands-on training approach for entrepreneurship development. Together with TP's Entrepreneurship Centre, it offers learning opportunities to all TP students in technical or business-related fields. Here, students learn about ice cream processing, inventory management, Hazard Analysis and Critical Control Point (HACCP), quality control and assurance, logistics and marketing functions as in real business scenarios.

## TP Animal Clinic

The TP Animal Clinic, licensed by the Agri-Food & Veterinary Authority in May 2011, serves to provide real-life training for Veterinary Technology students. Working under close supervision of our veterinarian staff, the students prepare the animals for sterilisation as well as provide essential veterinary assistance required for pre-and post-surgery and anaesthesia procedures. The students are also directly involved in animal monitoring and recovery. Apart from offering animal sterilisation services to the public, both the Cat Welfare Society and SPCA work closely with the TP Animal Clinic on stray animal sterilisations.

## The Village Café Learning Enterprise

Situated at the Glocal Connect Village, this alternative F&B training ground allows students to practise productivity in a real F&B business model through the use of technology, innovative product design, and effective cost control. This café provides a cool and cosy ambience that serves quality food incorporating elements of different cultures.

# Applied Food Science & Nutrition



What's in your favourite snack of crisps or instant noodles? Why do food manufacturers add chemicals to our packaged food? Can food really help us feel and look good?

Study this course if you want the answers to these questions. Step into the world of food science and nutrition, and appreciate the science behind food and how its components react with each other and impact our health. With there being such a huge variety of food around us, discover the role food plays in our wellbeing, and how it impacts our nation's health status too.

With rising concerns about the impact of our diet on our health in later years, there is a big demand for tasty yet healthier foods. Applying the scientific knowledge of both food science and nutrition, and receiving practice-oriented training, you will gain the necessary competence to embark on a career in the food, nutrition and the healthcare industries.

The food science and technology subjects will equip you for the challenging food industry in developing innovative, healthier and safer foods – through the use of the latest processing technology, functional food ingredients and techniques of preservation. The nutrition and health-related subjects will provide you with

the knowledge and skills to create and evaluate healthier meals for different population groups, assess their nutritional status, develop nutrition education programmes, and understand the management of diet-related diseases.



TP's student interns are able to work independently with minimum supervision. They possess good technical knowledge and are able to carry out assignments competently. They demonstrate good service awareness and work well in the team throughout the attachment period.

Ms Sharon Suniega  
R&D Manager  
Lacto Asia Pte Ltd

## Career Opportunities

Our graduates can embark on a career in the food, nutrition and healthcare industries. You may be employed as a nutrition executive, dietetic technologist, nutrition educator, food laboratory analyst, R&D executive, QA/QC executive, food microbiologist, or food hygiene officer in food operations.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 63 credit units
Elective Subjects	: min 17 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following subjects:	Grades 1 - 6
Biology, Biotechnology, Chemistry, Combined Science, Food & Nutrition, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry)	
Any two other subjects, excluding CCA	-

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ACS1005	Communication & Information Literacy (IComm)	1	2	
ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3024	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1004	Basic Microbiology	1	3
ACH1007	Organic & Biological Chemistry	1	4
ACH1009	Principles of Inorganic & Physical Chemistry 1	1	4
AFS1001	Food Chemistry	1	5
AMA1003	Mathematics for Applied Science	1	3
AMA1004	Statistics for Applied Science	1	3
ANT1001	Science in Food Preparation	1	4
ANT1002	Basic Nutrition & Food	1	4
AFS2002	Food Preservation & Quality Assurance	2	4
AFS2007	Food Additives	2	4
AFS2009	Sensory Science	2	4
ANT2001	Nutrition Across the Life Span	2	5
ANT2009	Community Health & Nutrition	2	4
ANT2010	Principles of Biochemistry & Physiology for Nutrition	2	4
AMP3014	Major Project	3	8

### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACH2004	Principles of Instrumental Analysis	2	4
AFS3005	Food Processing & Packaging	3	5
ANT3001	Nutrition in Disease	3	5
ANT3004	Practical Sports Nutrition	3	4

### DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Food Safety in Product Development</u>			
AFS2008	Applied Food Sanitation	2	3
AFS3006	Product Development & Marketing	3	3
AFS3007	Food Safety	3	3

# Baking & Culinary Science



Future Master Chefs, take note! If you dream of creating the perfect dish, sweet or dessert, stop dreaming and let science help you. Take the guesswork out of baking and culinary work and uncover the science behind the recipes and techniques that you do: from tempering chocolate, reducing sauces to roasting the perfect duck. With your scientific knowhow, you'll be able to create innovative dishes as well as mouth-watering desserts for the food and beverage industry.

This course will teach you to scientifically evaluate the sensory and food quality aspects of the dishes you prepare. Right from your first year, comprehensive hands-on training on culinary and baking sets your foundation before moving on to an intensive yet interactive second year with more advanced techniques and skill-based experiences that are coupled with the explained science. The curriculum encompasses chemistry, microbiology, food safety, product development, as well as baking and culinary technology. Part of the uniqueness of this course is that you will undergo a truly Asian culinary experience with a touch of your local heritage too.

During the third year, you will apply your acquired knowledge and skills to manage and operate various real-life F&B Learning Enterprises on campus, as well as undergo a 20-week internship to gain and further develop your career-specific skills in the diverse food and beverage (F&B) industry or food ingredient companies. The course also hones your entrepreneurial skills to help you embark on your own business ventures.



Great training is the foundation of professionalism, and TP culinary students exemplify what it means to be the product of a great educational programme. With a higher standard of professionalism, culinary knowledge and technical skills development, these students bring a unique combination of confidence, dedication and ability to the job, making them an invaluable asset to any culinary team.

Chef Toni Robertson  
Executive Chef  
Mandarin Oriental, Singapore

## Career Opportunities

Our graduates are well-positioned to join the F&B industry as junior chefs, baking technologists or food product R&D executives. They can also choose to work in the baking, food service and food consultancy industries as well as in other supporting industries dealing with food ingredients. Graduates with a strong desire to pursue higher degrees may move on to universities that offer culinary science, as well as food service or culinary arts management courses.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 71 credit units
Elective Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results, as well as directly through the Early Admissions Exercise (EAE). Candidates who are shortlisted through the EAE will be required to undergo an interview to which they should bring portfolios of their work in culinary as evidence of their passion and creativity. The process seeks to determine the aptitude and attitude such as commitment and enthusiasm of the candidate for the culinary arts. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following subjects:	Grades 1 - 6
Biology, Biotechnology, Chemistry, Combined Science, Food & Nutrition, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry)	
Any two other subjects, excluding CCA	-

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

### Note:

- *Students are required to work in non-halal certified kitchens and facilities, as well as handle various ingredients such as meats (including pork and their by-products); emulsifiers and gelling agents of animal origin; as well as alcohol-based products. Students may not necessarily consume these ingredients but will be required to evaluate and assess their physical/ chemical properties.*
- *Students must be prepared to work in a fast-paced and warm environment of the various commercial grade kitchens. To ensure compliance on food and workplace safety, applicants with any medical conditions including physical disabilities should make a declaration and obtain pre-enrolment medical clearance.*
- *Students are also required to purchase uniform sets, safety shoes, bakery and knife sets and textbooks. These are not included in the tuition fees.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ACS1005	Communication & Information Literacy (IComm)	1	2	
ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3025	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABC1001	Food & Culture	1	3
ABC1006	Fundamental Culinary Skills	1	5
ABC1008	Principles of Culinary Science	1	3
ABC1009	Fundamental Baking Skills	1	3
ABC1010	Food Safety Fundamentals	1	3
ACH1007	Organic & Biological Chemistry	1	4
AFS1001	Food Chemistry	1	5
ANT1002	Basic Nutrition & Food	1	4
ABC2015	Baking & Pastry Practicum	2	6
ABC2017	Food Service Technology Application	2	4
ABC2018	Asian Cuisines Practicum	2	7
ABC2020	Western Cuisines Practicum	2	5
ABC2021	Baking & Confectionery Science	2	3
AFS2007	Food Additives	2	4
ABC3008	Product Development in Food Service	3	4
AMP3015	Major Project	3	8

## DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>F&amp;B Enterprise</u>			
ABC3006	Baking & Culinary Operations	3	7
ABC3009	Food Service Principles of Management	3	2

# Biomedical Science



Play a part in assisting clinical diagnosis, and in the research and development of new methods for the diagnosis, treatment and prevention of diseases. Study Biomedical Science and you will understand how the human body functions, how diseases occur, and how we can prevent and diagnose them.

Singapore is poised to be a global hub for biomedical and clinical sciences. The local biomedical sciences sector is growing rapidly with increasing foreign direct investment that boosts job opportunities in clinical laboratory testing, clinical trials as well as research and development. Singapore's thrust to be the region's medical hub with world-class healthcare services emphasises the need for quality trained technologists in clinical laboratories and clinical research. This course puts you in demand!

You begin by learning the foundational sciences to understand the biology and chemistry of health sciences. You will study, among other things, the inner workings of living cells, the biological processes involving proteins and enzymes, the structure, parts and functions of the human body, and the world of bacteria, viruses and other microorganisms. You will progress to learn the nature, causes and progression of human diseases, our biological responses

and defences, and diagnosis so that appropriate treatment can be provided. You will ultimately build your strength in the testing, diagnosis, management and prevention of diseases.

This course emphasises learning through established collaborative training with industry/research institutions/hospitals, taught by experienced teaching/research staff and industry practitioners. The compulsory structured internship carried out concurrently with major projects helps you to experience working life and allows you to apply theory to practice. Interns are involved in real industry projects, evaluating new clinical laboratory equipment or diagnostic test kits.



We are impressed by the quality of TP's students who are attached to SGH pathology laboratories annually. They demonstrate enthusiasm, commitment, diligence and a positive attitude throughout the period of their attachments. The skills that they have acquired in the laboratories will put them in good stead to commence work almost immediately as laboratory or medical technologists in hospitals and clinical laboratories upon graduation. With more hospitals being developed and a rapidly ageing population, there is a very strong demand for graduates embarking on such careers.

Dr Alvin Lim Soon Tiong  
 Assistant Director, Department of Pathology, SGH  
 Director of Allied Health Education,  
 SingHealth Duke-NUS Pathology Academic Clinical Programme  
 Adjunct Associate Professor,  
 Duke-NUS Graduate Medical School Singapore  
 Adjunct Associate Professor,  
 School of Biological Sciences, NTU

## Career Opportunities

Our graduates can work as medical technologists or laboratory technologists in hospital/clinical laboratories, medical research centres, and central testing laboratories. They can also work as assistant clinical research co-ordinators at clinical research organisations. Those who enjoy being at the forefront of technology can work as product application specialists, or sales and marketing executives of medical/diagnostic products and devices.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 71 credit units
Elective Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

## Application

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One of the following subjects:	Grades 1 - 6
Biology, Biotechnology, Chemistry, Combined Science, Food & Nutrition, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry)	
Any two other subjects, excluding CCA	-

\* *Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

*Note: Applicants with partial or complete colour appreciation deficiency are not eligible to apply.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ACS1005	Communication & Information Literacy (IComm)	1	2	
ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3026	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABT1001	Cell Biology	1	4
ABT1003	Biomolecules	1	5
ABT1004	Molecular Genetics	1	5
ACH1009	Principles of Inorganic & Physical Chemistry 1	1	4
AMA1003	Mathematics for Applied Science	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1004	Basic Microbiology	1	3
ABM2013	Immunology	2	4
ABM2014	Clinical Chemistry	2	5
ABM2016	Biological Data Analysis	2	5
ABM2017	Histopathology	2	5
ABT2013	Molecular Biology	2	4
ABT2015	Mammalian Cell Technology	2	3
ACH2004	Principles of Instrumental Analysis	2	4
AMB2006	Medical Microbiology	2	4
AMP3006	Major Project	3	8

## DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Laboratory Medicine</u>			
ABM3006	Blood Banking	3	3
ABM3009	Haematology	3	3
ABM3010	Laboratory Management & Quality Assurance	3	3
<u>Free Electives</u>			
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3011	Current Good Manufacturing Practice & Process Improvement	3	4

# Biotechnology



Genes, molecular biology, cloning, cell technology, immunology, drug discovery, diagnostic development, biochemical analysis, health and disease research – do these terms excite you? Do you want to acquire life science skills that will make you globally competitive? Do you want a career that involves new biological discoveries and novel applications of knowledge? If so, this course is for you!

This course trains you to be a research or laboratory technologist supporting the growing life science industry. The Singapore Government has targeted the life science industry to be our fourth pillar of economic growth, and has invested heavily to make Singapore the regional life sciences hub. As a result, research technologists are increasingly in demand in disease biology, diagnostics and therapeutics. At the same time, more manpower is also needed for research activities on economically important plants and animals so as to increase our food yield.

In your first year, you will develop a solid foundation in basic biology and chemistry. The second year trains you in the diploma specialisation subjects through a well-integrated sequence of modules on cellular and molecular biotechnology. A hands-on approach forms the core basis of training, during which you will acquire

a repertoire of research skills in the areas of molecular biology, mammalian cell technology, biochemistry, microbiology, genomics, proteomics, plant biotechnology, immunology and other key supporting technology essential for biomedical and scientific laboratory and industry. The elective subjects that you will take in the third year will allow you greater specialisation in your selected field, especially in the areas of translational biomedical research or bioinformatics.

You will eventually develop a solid broad-based foundation in life sciences that will maximise your career and future educational options. To further hone your technical skills, you will undergo a six-month attachment either locally or overseas in the biotechnology and biomedical industries.



I am impressed by the diligence and inquisitive nature of students from this course and would gladly accept them without any qualms for any suitable projects in future.

Dr Yang Yuansheng  
Research Scientist  
Bioprocess Technology  
Institute,  
A\*STAR

## Career Opportunities

Our graduates have found work in research institutions (both A\*STAR and non-A\*STAR), universities, hospitals, biotechnology companies and also government ministries and statutory boards. You may also work as a laboratory technologist assisting in pre-clinical trials at contract research organisations, or in laboratory operations and maintenance at research and teaching institutions, or even hospitals. Graduates interested to be technical support officers can also work in aquaculture and agro-technology parks and farms. Your solid broad-based training will also enable you to be employed as a marketing or product specialist for life sciences instruments and products. The laboratory skills and knowledge gained by our graduates are applicable worldwide.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 71 credit units
Elective Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

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## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following subjects:	Grades 1 - 6
Biology, Biotechnology, Chemistry, Combined Science, Food & Nutrition, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry)	
Any two other subjects, excluding CCA	-

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ACS1005	Communication & Information Literacy (IComm)	1	2	
ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3027	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

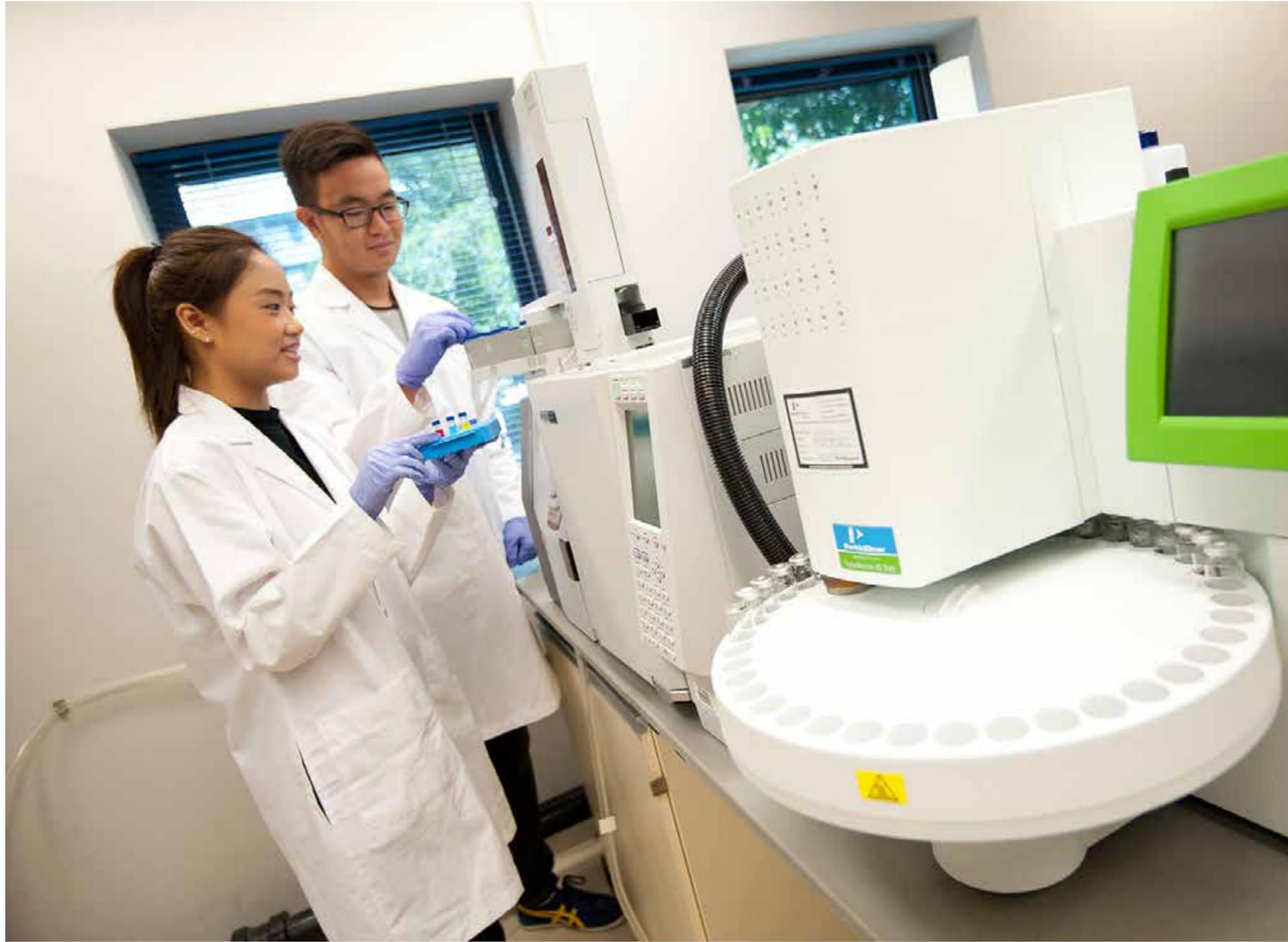
SUBJECT CODE	SUBJECT	LEVEL		CREDIT UNITS
ABT1001	Cell Biology	1	4	
ABT1003	Biomolecules	1	5	
ABT1004	Molecular Genetics	1	5	
ACH1009	Principles of Inorganic & Physical Chemistry 1	1	4	
AMA1003	Mathematics for Applied Science	1	3	
AMB1002	Human Anatomy & Physiology	1	5	
AMB1004	Basic Microbiology	1	3	
ABM2013	Immunology	2	4	
ABM2016	Biological Data Analysis	2	5	
ABT2006	Analytical Biochemistry	2	5	
ABT2009	Plant Cell Technology	2	5	
ABT2013	Molecular Biology	2	4	
ABT2014	Metabolic Biochemistry	2	4	
ABT2015	Mammalian Cell Technology	2	3	
AMB2006	Medical Microbiology	2	4	
AMP3013	Major Project	3	8	

## DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Translational Biomedical Research</u>			
ABT3019	Stem Cells & Tissue Engineering	3	3
ABT3026	Molecular Diagnostic Development	3	3
ABT3027	OMICs & Recombinant Technology	3	3
<u>Bioinformatics</u>			
ABT2017	Scripting in Bioinformatics	2	3
ABT3023	Sequence Analysis	3	3
ABT3024	Structural Bioinformatics	3	3
<u>Free Electives</u>			
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3011	Current Good Manufacturing Practice & Process Improvement	3	4

# Chemical Engineering



Oil refinery giants, major manufacturers of petrochemicals, specialty chemicals and pharmaceutical giants all have a strong presence in Singapore. These companies, rooted in such diverse fields, have one thing in common — they rely on chemical engineers in all aspects of their operations.

Chemical engineers are involved in the manufacture of products such as fuel, cosmetics, petrochemicals, plastics, processed foods and medicine so that we can enjoy and reap the benefits of scientific discoveries. They hold crucial responsibilities in the process industry such as running plant operations, designing reactors and process equipment, improving efficiency as well as looking into the safety and environmental aspects of processes.

This course will equip you with knowledge and skills in chemistry and analytical chemistry, and laboratory techniques so that you will be well trained to do research and testing for the Chemical and Pharmaceutical Industry. Moreover, you will be trained in chemical process technology, occupational safety and health, as well as environmental technology, so that you will be able to operate and optimise manufacturing systems that produce the products that we use every day in a safe and environmentally friendly way.

The extensive scope of this course will prepare you for higher education. Besides the National University of Singapore and Nanyang Technological University, students can also enrol in the Singapore Institute of Technology for further studies. You will have opportunities for local or overseas internships at multinational corporations and reputable institutions.



Students and graduates from this course are responsible and inquisitive. They have a good understanding of process engineering and are able to perform their task well with minimum supervision.

Lim Kiah Siang  
Training Manager  
Petrochemical Corporation of Singapore  
(Pte) Ltd

## Career Opportunities

Trained to be versatile, you can conduct research or testing in laboratories, or be involved in production and technical sales in a broad range of companies in various industries. Specifically, you can embark on a rewarding career in Singapore's world-leading energy and chemical industry. Alternatively, you can consider a fulfilling career in the fast growing pharmaceutical and biotechnology industry, which produces medicines used by doctors worldwide to improve patients' quality of life.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 71 credit units
Elective Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following subjects:	Grades 1 - 6
Biology, Biotechnology, Chemistry, Combined Science, Food & Nutrition, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry)	
Any two other subjects, excluding CCA	-

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ACS1005	Communication & Information Literacy (IComm)	1	2	
ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3028	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

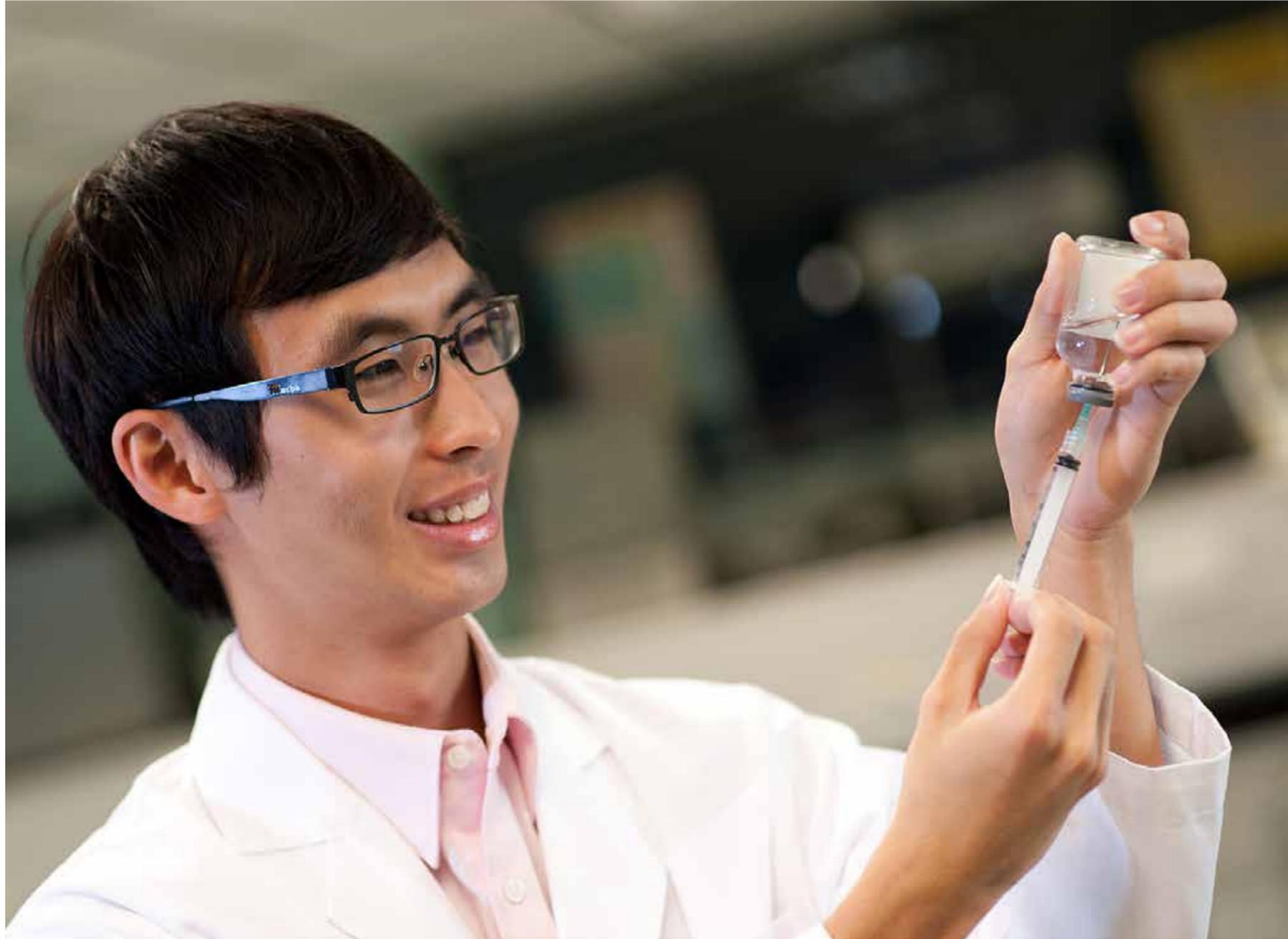
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1004	Basic Microbiology	1	3
ACE1002	Thermodynamics	1	4
ACE1006	Mass & Energy Balance	1	4
ACH1008	Principles of Organic Chemistry	1	4
ACH1009	Principles of Inorganic & Physical Chemistry 1	1	4
ACH1010	Principles of Inorganic & Physical Chemistry 2	1	4
AMA1006	Engineering Mathematics 1	1	4
AMA1007	Applied Mathematics	1	3
ACE2002	Environmental Technology	2	4
ACE2009	Occupational Safety & Health	2	4
ACE2011	Unit Operations 1	2	4
ACE2012	Unit Operations 2	2	4
ACE2013	Chemical Reaction Engineering	2	4
ACE2014	Productivity Improvement	2	2
ACE2015	Process Control & Instrumentation	2	4
ACH2004	Principles of Instrumental Analysis	2	4
AMA2002	Engineering Mathematics 2	2	3
AMP3008	Major Project	3	8

## DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Applied Chemistry</u>			
ACE3012	Chemical & Material Testing	3	4
ACH3005	Laboratory Analysis & Management	3	5
<u>Chemical Processing</u>			
ACE3004	Plant Safety & Loss Prevention	3	4
ACE3013	Petrochemical Plant Processes	3	5
<u>Pharmaceutical &amp; Biologics Technology</u>			
APH3014	GMP in Pharmaceuticals/ Biologics	3	4
APH3015	Biopharmaceutical Processing	3	5

# Pharmaceutical Science



Do you have a passion to safeguard health by making quality drugs and imparting knowledge on the safe use of medicines? If so, this course is for you! You will learn about the effects of medicines on the human body and how they work to cure diseases, and acquire the knowledge and skills required to design, analyse, manufacture and market new therapies for diseases.

With a rapidly growing ageing population and higher incidence of lifestyle-related illnesses such as Type 2 diabetes and heart diseases, there is an increase demand for healthcare services, pharmaceutical and biologic drugs. Singapore has positioned herself to be a regional biomedical hub and has committed S\$3.7 billion to the biomedical industry, attracting leading biopharmaceutical companies to make Singapore their global manufacturing base and creating many job opportunities in these industries. In addition, with new hospitals, polyclinics and nursing homes in the pipeline, there will also be an unprecedented need for pharmacy technicians and pharmacists in Singapore to work in this industry.

This course will build your foundation in chemistry and biology, and equip you with the knowledge and core skills in

pharmacy practice, pharmaceutical and biopharmaceutical technologies and analysis. You will learn specialised subjects related to drug action on diseases, medicine legislations and patient counselling to prepare you for work in pharmacies. You will also learn about pharmaceutical manufacturing and bioprocessing technologies and good manufacturing practice.

In your third year of study, you can choose to specialize either in the Pharmacy Practice or Pharmaceuticals and Biologics elective cluster, where you will deepen your knowledge in these areas and apply your skills in the relevant fields during the six-month enhanced internship programme. You will be able to take up an internship position at hospitals, retail pharmacies, pharmaceutical manufacturing industry, or QC and research laboratories in Singapore or overseas. The internship enables you to apply theory to practice on real industry projects. During the course of your study, you can also take part in research projects offered by the school or research institutes in various research topics such as pharmaceutical science, analytical science, biologics and traditional medicine.

As part of the government's SkillsFuture initiatives to encourage continuing education and skill mastery, Continuing Education and Training (CET) programmes such as the Attach-and-Train for Biologics Sector and Advanced Diploma in Pharmaceutical Sciences as well as many other modular courses have been launched, providing ample opportunities for our Diploma in Pharmaceutical Science graduates to deepen and upgrade their skills.



The students from Temasek Polytechnic are generally well-rounded in terms of communication skills and clinical knowledge. The curriculum is well-balanced enough to provide sufficient coverage as well as depth to adequately equip the students for the internship programme.

Esther Ang Pei Jing  
Outpatient Pharmacy  
KK Women's & Children's Hospital

## Career Opportunities

Graduates can work as pharmacy technicians in hospitals, community and retail pharmacies, QA/QC assistants to conduct analysis and quality checks on finished pharmaceutical products or production technicians to manufacture drugs in the pharmaceutical and biopharmaceutical industry. For the research-inclined, you can also join research institutes or pharmaceutical companies to assist in research work on drug development and clinical trials. You can also embark on a career in technical sales and marketing for pharmaceutical and health products.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamental Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 71 credit units
Elective Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

## Application

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## Minimum Entry Requirements

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Any two other subjects, excluding CCA	-

\* *Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
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ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3029	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABT1001	Cell Biology	1	4
ACH1007	Organic & Biological Chemistry	1	4
ACH1009	Principles of Inorganic & Physical Chemistry	1	4
AMA1004	Statistics for Applied Science	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1004	Basic Microbiology	1	3
APH1001	Principles of Pharmacology	1	3
APH1002	Basic Pathology & Immunology	1	3
APH1003	Introduction to Pharmacy Practice	1	3
AMB2007	Pharmaceutical Microbiology	2	3
APH2001	Pharmaceutical Analysis 1	2	4
APH2009	Pharmacy Practice 1	2	5
APH2010	Pharmacy Practice 2	2	4
APH2011	Bioprocess Technology & Analysis	2	3
AMP3012	Major Project	3	8
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3011	Current Good Manufacturing Practice & Process Improvement	3	4
APH3012	Pharmaceutical Analysis 2	3	4

#### DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Pharmacy Practice</u>			
APH2012	Pharmaceutical Legislation, Marketing & Management	2	5
APH3013	Health Management in Patient Care	3	4
<u>Pharmaceuticals and Biologics</u>			
APH2013	Pharmaceutical Unit Operations	2	4
APH3015	Biopharmaceutical Processing	3	5

#### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

Students can also opt to take the following elective subjects when offered.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACH1010	Principles of Inorganic & Physical Chemistry 2	1	4
ABT2013	Molecular Biology	2	4
ACE2009	Occupational Safety & Health	2	4
ACE2015	Process Control & Instrumentation	2	4

# Veterinary Technology



Achieve your life-long dream of developing vaccines or treatment for animals suffering from diseases or working with animals in the veterinary, aquaculture and wildlife conservation, pet, animal theme park and scientific research communities.

Get a head start by assisting in real life animal sterilisations at TP's licenced TP Animal Clinic and, through our unique collaboration with Mount Pleasant Veterinary Group (2008) Pte Ltd and other animal hospitals, you will be clinically trained in all aspects of veterinary practice. With our intensive and practical training, you will graduate as a technically competent and much sought-after veterinary or animal technologist.

In our pursuit to find cures for human and animal diseases, animal models are used in research and pre-clinical trials. All these make responsible and humane animal care and use extremely important. Moreover, the growing importance of aquaculture for food productivity and for meeting the local consumer needs for seafood and fish, will ensure your expertise will be very much in demand in the years ahead.

This course focuses on establishing a solid foundation in the basic and applied animal sciences for meeting the needs of the veterinary, scientific research, wildlife conservation, aquaculture and pet

retail industries. The practice-oriented programme equips you with specialised skill sets that will prepare you well as responsible and competent veterinary/ animal technologists.

Other than veterinary diagnostics, surgery and anaesthesia assistance, animal nutrition and health, aquaculture and bio conservation, you will also learn about molecular and cellular techniques as well as humane care and use of laboratory animals for scientific and veterinary research. Your technical competency is further honed through a minimum five-month internship either locally or overseas in animal facilities and research institutions, animal or conservation parks, veterinary hospitals/ clinics and other animal-related organisations.



We are very happy with students from your course as they have better attitude towards learning and working compared to all the others whom we have had before.

Dr Lisa Park  
Chief Scientific Officer  
PWG Genetics Pte Ltd

## Career Opportunities

Our graduates can work in scientific research, wildlife and marine conservation, aquaculture, pet service and related industries, or the veterinary centres. You may be employed as a veterinary technologist in veterinary clinics/ hospitals, or as an animal welfare education officer/ assistant, animal health inspection assistant or animal care and management officer in animal welfare organisations, Agri-Food and Veterinary Authority of Singapore, animal quarantine centres and pet shops. You can also work as a biologist, veterinary technician, animal management officer or aquarist at River Safari, Wildlife Reserves Singapore, Underwater World in Sentosa and Marine Life Park in Resorts World Sentosa.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
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Elective Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

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Any two other subjects, excluding CCA	-

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

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ACS1006	Workplace Communication (WkComm)	1	2	
ACS1007	Persuasive Communication (PComm)	1	2	
AGS1002	Global Studies	1	3	
AGS1003	Managing Diversity at Work*	1	3	
AGS1004	Global Citizenship & Community Development*	1	3	
AGS1005	Expressions of Culture*	1	3	
AIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ASI3030	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1004	Basic Microbiology	1	3
ABT1003	Biomolecules	1	5
ACH1009	Principles of Inorganic Chemistry 1	1	4
AMA1004	Statistics for Applied Science	1	3
AVT1004	Wildlife Ecology & Conservation	1	2
AVT1006	Animal Anatomy & Physiology	1	4
AVT1007	Animal Nutrition, Feeds & Feeding	1	4
AVT1008	Developmental Biology	1	3
AVT1009	Animal Care, Husbandry & Behaviour	1	3
AVT2006	Veterinary Immunology	2	3
AVT2009	Veterinary Pharmacology & Toxicology	2	3
AVT2012	Molecular & Cell Technology	2	4
AVT2016	Animal Diseases & Clinical Pathology	2	4
AVT2017	Aquatic Care, Health & Diseases	2	3
AVT2018	Clinical Diagnostic Techniques	2	4
AVT2019	Clinical Practicum	2	3
AVT2020	Surgery, Anaesthesia & Veterinary Practices	2	4
AVT2021	Molecular Genetics & Genomics	2	4
AMP3011	Major Project	3	8

#### DIPLOMA SUBJECTS – ELECTIVE CLUSTER SUBJECTS

Students will be required to read an Elective Cluster offered by the School and complete a minimum of 9 credit units. The Elective Cluster to be offered by the course, and the subjects under this Cluster, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Veterinary</u>			
AVT3010	Animal Breeding & Reproduction	3	4
AVT3011	Laboratory Animal Science & Technology	3	5
<u>Aquaculture</u>			
AVT3012	Aquaculture Product Quality & Safety	3	4
AVT3013	Aquaculture Technology	3	5

# Subject Synopses

## ABC1001 Food & Culture

This subject equips you with the necessary knowledge of the different types of cuisines in selected countries, the ingredients used, and the foods and alcoholic beverages used in major festivals and celebrations in these countries. It also provides an understanding of the important roles of food in culture such as its association with religious beliefs, collective identities, symbolism, and the arts. This subject provides the cultural backdrop to enhance the understanding of food use and is relevant to other subjects in the course.

## ABC1006 Fundamental Culinary Skills

This subject covers various cooking techniques such as sautéing, broiling, poaching, simmering, panfrying, and deep-fat frying. Knife skills, operation of equipment, purchasing, receiving and storage of food will also be covered. In addition, the fundamentals of ingredients applications in various recipes and proper food hygiene practices will be taught.

## ABC1008 Principles of Culinary Science

This subject illustrates the principles of food science in culinary application, emphasising the functional and structural properties of food constituents and their behaviour during food preparation. This subject will also discuss concepts that underpin everyday cooking.

## ABC1009 Fundamental Baking Skills

The subject will cover the fundamental skills for baking and pastry. A variety of baked products will be covered that includes bread, cakes and pastries. Knowledge of equipment and ingredients selection, as well as safety in a baking kitchen will be emphasised.

## ABC1010 Food Safety Fundamentals

This subject focuses on the food safety aspects associated with food service operations. It covers the sources of potential food hazards, cleaning and sanitising, pest control and the application of a food safety management system in the food service environment.

## ABC2013 Food Service Operations

This subject covers the fundamental knowledge and skills on managing a catering operation. Topics include menu planning, cost management, and purchasing, receiving and storage of food. Other topics include operating kitchen equipment, quantity food production planning and implementation of quality control measures. Kitchen safety and proper food hygiene practices will be emphasised throughout the practicals.

## ABC2015 Baking & Pastry Practicum

The subject aims to develop a repertoire of baking and pastry skills with emphasis on the preparation of specialty baked products with the use of commercial baking equipment or specialty ingredients. This subject will also include more advanced technical skills in pastry and confectionery.

## ABC2017 Food Service Technology Application

This subject is designed to provide the knowledge and skills necessary to produce foods using various technologies to support production efficiency in the food service. Engineering concepts in relation to catering technology will also be highlighted.

## ABC2018 Asian Cuisines Practicum

This subject aims to provide practice in the preparation, presentation and evaluation of common dishes from various Asian regions with focus on Chinese and South East Asia. It will also require the demonstration of culinary skills during kitchen practicum on the preparation of stocks, sauces, soups, salads, fruits/vegetables, grains, eggs, poultry, red meat, and seafood. Knowledge on equipment selection and kitchen safety will be emphasised.

## ABC2020 Western Cuisines Practicum

This subject aims to provide practice in the preparation, presentation and evaluation of common dishes from various Western regions with focus on French and Italian. This subject will also require the demonstration of culinary skills during kitchen practicum on the preparation of stocks, sauces, soups, salads, fruits/vegetables, grains, eggs, poultry, red meat, and seafood. Knowledge on equipment selection and kitchen safety will be emphasised.

## ABC2021 Baking & Confectionery Science

This subject will cover the fundamentals of baking and confectionery science. The topics include flour milling, analytical tests used to evaluate flour quality, functions of ingredients used in various baked and confectionery products and processing methods for various confectionery products.

## ABC3006 Baking & Culinary Operations

This subject provides the necessary practical training in quantity food production for a food service operation. You will be required to manage catering processes and/or technologies to scale menu items whilst ensuring food quality and safety.

## ABC3008 Product Development in Food Service

This subject provides opportunities to develop new food products in the food service environment. Idea generation techniques, applications of knowledge in food science and nutrition, functionality and selection of food ingredients, food safety, and sensory evaluation are demonstrated through product development projects.

## ABC3009 Food Service Principles of Management

This subject focuses on the strategies and tools in managing a food service. It provides the management and operational knowledge in facilities planning and design, production planning, marketing, distribution and their applications in food services. Topics will also include operational and strategic management, human resource and financial management.

## ABM2013 Immunology

The subject covers the basic concepts of immunology from components of the immune system to specific and non-specific immune responses to infections as well as aberrant immune activities like autoimmunity and hypersensitivity. It also deals with the use of immune cells and mediators for prophylaxis and treatment of diseases, as well as immunological techniques that are used for diagnosis of diseases and research.

### **ABM2014 Clinical Chemistry**

This subject focuses on the pathophysiological changes in disease and the application of clinical chemistry concepts for diagnosis, prognosis, monitoring and screening of disease.

### **ABM2016 Biological Data Analysis**

This subject covers the basics of biostatistics and application of statistics in clinical practices by converting clinical and laboratory experiences into quantitative statements. The topics covered include using statistical tools to summarize data, test for differences between test groups, analyse rates and proportions, establish or validate confidence intervals, and testing for trends. It also covers the application of biostatistics in different clinical cases. The topics covered include t-test, ANOVA and non-parametric tests.

### **ABM2017 Histopathology**

This subject introduces the basic knowledge of general and systemic pathology, as well as structural and functional abnormalities of organs and organ systems. Basic principles and skills related to histopathological diagnosis will also be covered.

### **ABM3006 Blood Banking**

This subject covers the theoretical, practical and clinical aspects of blood transfusion. Emphasis is given on the application of immunologic principles as applied to blood grouping, antibody screening, identification and compatibility testing. It also stresses the importance of laboratory quality control and clinical considerations in transfusion practices.

### **ABM3009 Haematology**

This subject covers theoretical foundations and practical skills in haematology. It includes development of blood cells, diseases and disorders related to blood as well as bone marrow. It focuses on screening, diagnosis, prognosis and monitoring of haematological diseases and disorders.

### **ABM3010 Laboratory Management & Quality Assurance**

This subject covers laboratory management, quality assurance, laboratory automation, statistical methods and safety regulations practised in laboratories. The role of different quality systems monitoring the quality assurance is also included.

### **ABT1001 Cell Biology**

This subject covers the biology of cells of higher organisms, including structure-function relationships of cellular membranes and internal organelles, cell cycle and nuclear division, transport mechanisms and cell communication, cell motility and the cytoskeleton and cell death. Basic laboratory skills involving the study of cell structures with the use of cell staining techniques and microscopy will also be introduced in this subject.

### **ABT1003 Biomolecules**

This subject introduces the fundamental principles of biochemistry as well as the essential biomolecules present in biological systems. The structures, properties and interactions of biomolecules will be covered. The basic concepts of bioenergetics will also be introduced to illustrate how these interactions lead to life processes.

### **ABT1004 Molecular Genetics**

This subject teaches both the theoretical knowledge and practical techniques of molecular genetics using the E. coli system as a model. Topics covered include DNA structure, replication, transcription, translation, mutations, and regulation of gene expression in prokaryotes.

### **ABT2006 Analytical Biochemistry**

This subject focuses on the applications of analytical and separation techniques in the field of biotechnology. Basic concepts and techniques for extraction, purification and analysis of biomolecules will be covered.

### **ABT2009 Plant Cell Technology**

This subject covers the theoretical and practical aspects of plant cell technology. Topics covered include micropropagation techniques, callus induction, organogenesis, somatic embryogenesis protoplast isolation and secondary metabolites production.

### **ABT2013 Molecular Biology**

This subject provides you with the basic theoretical and practical knowledge of Molecular Biology. Topics include the molecular biology techniques, gene regulation in eukaryotes, eukaryotic viruses, genetics and cancer.

### **ABT2014 Metabolic Biochemistry**

This subject focuses on the principles of Biochemistry by building on concepts learnt from Organic Chemistry 1 and Biomolecules. You will be introduced to the basics of bioenergetics before progressing to studying energy metabolism pathways and their regulation. The individual pathways will then be integrated together to give you a holistic view of energy metabolism.

### **ABT2015 Mammalian Cell Technology**

This subject provides basic theoretical and practical knowledge of mammalian cell culture. Topics covered include cell culture techniques, prevention and contamination control, working in a tissue culture laboratory and applications of animal cell culture in biotechnology such as hybridoma generation.

### **ABT2017 Scripting in Bioinformatics**

This subject introduces scripting techniques and uses a scripting language to obtain information from bioinformatics databases and analyse large amounts of biological data. Data privacy acts and IT policies at the workplace will also be covered.

### **ABT3019 Stem Cells & Tissue Engineering**

This subject covers an overview of the concepts of tissue engineering, stem cells, biomaterials and a review on extracellular matrix, followed by topics on cell-cell and cell-matrix interactions at both the theoretical and experimental levels.

### **ABT3023 Sequence Analysis**

This subject covers the use of computational tools to mine for biological meaning in genomic DNA. The methods include sequence alignment, motif finding, sequence comparison and gene expression analysis.

### **ABT3024 Structural Bioinformatics**

This subject covers the use of computational tools to analyse protein sequence and 3D structure so as to predict their biological functions and model interactions with other molecules.

## ABT3026 Molecular Diagnostic Development

This subject covers diagnostic platforms, techniques and instrumentation as well as assay development, assay criteria (e.g. sensitivity, specificity, limits of detection etc.) and assay validation. It also addresses the regulatory requirements for diagnostic assays and the pathways to commercialisation. An introduction to regulatory and good manufacturing practice (GMP) is included to complete the cycle of lab to market.

## ABT3027 OMICs & Recombinant Technology

This subject covers the theory and practice of techniques used to evaluate and manipulate deoxyribonucleic acid (DNA), ribonucleic acid (RNA) and protein. It includes studies on the potential applications, present use and future trends in molecular biotechnology, genomics, transcriptomics and proteomics.

## ACE1002 Thermodynamics

This subject investigates the scientific principles and techniques which are the basic laws of chemical engineering thermodynamics. Further studies into the first and second law of thermodynamics, energy analysis, Gibbs free energy, phase equilibrium and chemical reaction equilibrium will be included.

## ACE1006 Mass & Energy Balance

This subject examines the scientific principles and techniques involved in material and energy balances which are the fundamentals of chemical engineering. Topics include the understanding of units, dimensional analysis and material balance with emphasis on application. Ideal and non-ideal gas laws, gas mixtures and psychometrics will also be studied in relation to engineering applications.

## ACE2002 Environmental Technology

This subject provides you with the basic scientific knowledge related to environmental problems and environmental control technology. Topics include water treatment, air pollution and pollution control technology, solid waste management, hazardous waste treatment technology, pollution control strategies and environmental monitoring in Singapore.

## ACE2009 Occupational Safety & Health

This subject covers health issues and safety at the workplace. The section on health examines the causes of occupational diseases and their respective controls (heat stress/ strain, ventilation, noise and industrial lighting). The section on safety explores topics like machinery safety, electrical safety, hazards of fire and explosion, housekeeping and material handling, personal protection equipment and legislation concerning occupational safety and health.

## ACE2011 Unit Operations 1

This subject is a development from basic engineering principles and covers both Newtonian and non-Newtonian flows, basic equations, fluid flow in pipes and fittings as well as fluidisation and filtration. It also covers the principles and operations of pumps, compressors and their performances. Practicals are included to enhance understanding.

## ACE2012 Unit Operations 2

This subject investigates the fundamental scientific principles and techniques in chemical engineering. Selected unit operations which involve diffusion and gas-liquid mass transfer (absorption and humidification), gas-liquid mass transfer (batch and continuous distillation) and liquid-liquid mass transfer (extraction) are discussed.

## ACE2013 Chemical Reaction Engineering

This subject examines the scientific principles behind the kinetics of chemical reactions and techniques which are the basic principles of chemical engineering. Further studies into the characteristics of batch reactors, mixed-flow reactors and plug-flow reactors will be carried out. Differences in the behaviour of ideal and non-ideal reactors are also highlighted.

## ACE2014 Productivity Improvement

This subject introduces the concepts and principles of productivity and how it can benefit organizations, in particular, the chemical, pharmaceutical and biologics industry.

## ACE2015 Process Control & Instrumentation

This subject covers the basic concepts and principles of process control and instrumentation in chemical process industries. Current journals are used to highlight the latest advancement in process control and instrumentation technologies. Topics include process measuring instruments, basic concept of process control and open and closed-loop control systems. In addition, application of control systems in different aspects of chemical processes is covered.

## ACE3004 Plant Safety & Loss Prevention

This subject examines plant and process safety. Emphasis will be on risk assessment, hazard analysis and the concept of loss prevention in the chemical plant.

## ACE3012 Chemical & Material Testing

This subject provides key concepts of materials technology and their relevance to the chemical process industry. You will also be exposed to various groups of nano materials, their properties and potential applications. Topics include basic concepts of materials property, types of materials, materials corrosion and prevention, and nanotechnology. It also covers the chemistry of water, including acid/base, precipitation and adsorption.

## ACE3013 Petrochemical Plant Processes

This subject covers the production of petrochemicals from various sources, the basic chemistry of petrochemicals, their usefulness and applications. You will also learn about raw materials and their building blocks and the various processes and unit operations involved in the production of petrochemicals. It also covers the classification of industrial wastewaters and the strategies for wastewater treatment to meet trade effluent standards and for resource recovery.

## ACH1007 Organic & Biological Chemistry

This subject covers basic knowledge of organic chemistry, constituents of biological systems, their properties and significance to biological science. Topics covered include general organic chemistry, carbohydrates, proteins and enzymes, and lipids.

## ACH1008 Principles of Organic Chemistry

This subject covers basic concepts in organic chemistry which correlate the structure of organic molecules with their properties of the functional groups. Topics covered are classification of organic compounds, structure and properties of alkanes, alkenes, alcohols, aldehydes and ketones, carboxylic acids, amines and stereochemistry. Emphasis will be placed on the applications of organic compounds and their derivatives, and their impact on chemical-related industries.

## ACH1009 Principles of Inorganic & Physical Chemistry 1

This subject covers the basic theory and practical knowledge of inorganic and physical chemistry. Topics include fundamentals of chemistry, atomic structure and chemical bonding, stoichiometry and equilibria concepts of a chemical reaction.

## ACH1010 Principles of Inorganic & Physical Chemistry 2

This subject covers theoretical and practical knowledge of inorganic and physical chemistry. Topics include ionic equilibria and calculations, chemical kinetics, chemistry of transition elements and electrochemistry.

## ACH2004 Principles of Instrumental Analysis

This subject provides the basic knowledge of the principles and applications of some instruments commonly used in chemical industries. Topics include measurement uncertainty, sampling techniques, sample pre-treatment, ultraviolet-visible spectroscopy, gas chromatography, high performance liquid chromatography and atomic absorption spectroscopy.

## ACH3005 Laboratory Analysis & Management

This subject covers the basic principles and applications of some specialized instruments used in analytical laboratories as well as applications of data analysis, method validation, and test method development. It also provides an introduction to laboratory management guidelines and systems, as well as the technical requirements of an accredited laboratory.

## ACS1005 Communication & Information Literacy

In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the **Message**, **Audience**, **Purpose** and **Strategy** (MAPS) when writing and delivering oral presentations.

## ACS1006 Workplace Communication

In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying **Message**, **Audience**, **Purpose** and **Strategy** (MAPS) will be covered.

## ACS1007 Persuasive Communication

In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **Message**, **Audience**, **Purpose** and **Strategy** (MAPS) will also be applied when engaging in verbal and written communication.

## AFS1001 Food Chemistry

This subject covers the four major components in food, namely water, carbohydrates, fats and oils, and protein. You will investigate the chemical reactions, physical and functional properties of these components.

## AFS2002 Food Preservation & Quality Assurance

This subject is an integration of three areas: food quality control, food preservation and food microbiology. It covers basic concepts of food preservation and quality assurance to produce products that comply with standards and legislations with respect to the microbiological, chemical and physical aspects.

## AFS2007 Food Additives

This subject covers the main additives commonly used in food manufacture. These include emulsifiers, stabilisers and sweeteners. Food regulations on the use of additives will also be covered.

## AFS2008 Applied Food Sanitation

This subject focuses on the sanitation aspects associated with food establishments. Topics covered include hygienic aspects of food premise design and equipment, water sanitation and the appropriate use of cleaning and sanitising chemicals.

## AFS2009 Sensory Science

This subject covers topics such as sensory evaluation and statistical analysis of food products, experimental design and rheology.

## AFS3005 Food Processing & Packaging

This subject provides a general overview of the current food processing methods used in the food industry. In addition, the processing conditions and equipment for selected food commodities are discussed. This subject also provides an insight into food packaging technology and a brief introduction to process control.

## AFS3006 Product Development & Marketing

This subject covers the fundamentals for developing new food products. You will develop food products that fulfil the legislation through the use of suitable ingredients, processing methods and techniques in food preservation. Principles of marketing and product commercialisation will also be covered.

## AFS3007 Food Safety

This subject covers important and current food safety aspects of the industry, which include food regulations and legislations, genetically modified foods/ ingredients and cold chain management.

## AGS1002 Global Studies

This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.

## AGS1003 Managing Diversity at Work

You will examine your own identity, study different forms of diversity and apply strategies to inspire positive collaboration in a diverse workplace. Through a residential stay, you will have the opportunity to experience living and working with peers from different backgrounds.

## AGS1004 Global Citizenship & Community Development

This subject highlights the inter-connectedness of the world today, bringing about what it means to be a Global Citizen. You will gain an awareness of the impacts of globalisation and the concepts of social responsibility and sustainable community development. This subject also challenges you to be actively engaged in a social or environmental project.

## AGS1005 Expressions of Culture

Whether telling stories, building monuments or celebrating rites of passage, expressions of culture are at the core of cultural diversity. In this subject, everyday objects, artistic creations and popular culture are explored as ways of understanding the values and beliefs of a society. You will explain the role of cultural heritage stakeholders and learn to conduct cultural story-telling. By taking this subject, you will benefit by acquiring a greater understanding and appreciation of the complexities surrounding our cultural assets.

## AIN100 Innovation & Entrepreneurship

The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. You will first be introduced to the Design Thinking framework and learn how to develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. In addition, commercial awareness will be imbued in you through the LEAN Startup framework, idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding/crowdsourcing avenues.

## AMA1003 Mathematics for Applied Science

This subject equips you with the basic mathematical techniques that are essential for your course of study. Algebra, differentiation, integration, linear regression and their applications are some topics that are covered.

## AMA1004 Statistics for Applied Science

This subject provides you with the basic statistical techniques that are essential for your course of study. Topics covered include basic probability and distributions, basic statistics, sampling distribution, hypothesis testing, analysis of variance and chi-square testing.

## AMA1006 Engineering Mathematics 1

This subject enhances your knowledge of the basic concepts of mathematics and applications in an engineering environment by adopting the problem-solving approach. Topics covered include the types of basic functions, composite and inverse functions, quadratic equations, remainder and factor theorems, partial fractions and basic Calculus.

## AMA1007 Applied Mathematics

This subject equips you with the basic applied mathematical concepts and techniques that are essential for your course of study. Topics include the application of statistics and mechanics. The section on statistics covers investigations into basic statistics, sampling distribution, hypothesis testing and analysis of variances. The section on mechanics includes investigations into statistics, kinematics, Newton's Laws of Motion, circular motion and impulses.

## AMA2002 Engineering Mathematics 2

This subject, a continuation of Engineering Mathematics 1, equips you with the advanced concepts of engineering mathematics that can be applied to an engineering environment using a problem-solving approach. Topics include types of arithmetic and geometric series, convergence, matrices and transformations, trigonometry and differential equations.

## AMB1002 Human Anatomy & Physiology

This subject provides you with a basic understanding of human anatomy and physiology. Topics include anatomy of human organs and organ systems and their functions.

## AMB1004 Basic Microbiology

This subject investigates the important fundamentals of microbiology and its relevance to the food, biomedical and biotechnology industries. It covers the types of microorganisms, their cultivation and growth as well as their control.

## AMB2006 Medical Microbiology

This subject covers the host-microbe interactions with emphasis on infectious diseases in humans. It includes various modes of transmission, diagnosis, prevention and control of infectious diseases caused by bacteria, viruses, fungi and parasites.

## AMB2007 Pharmaceutical Microbiology

This subject covers the applications of microbiology in the pharmaceutical industry and focuses on the microbiological testing of pharmaceutical products and equips students with the skills to perform aseptic dispensing techniques.

## AMP3006 Major Project (Biomedical Science)

This subject provides a framework for you to solve practical problems, conduct research work and/ or develop studies, through a self-managed project. The scope of the subject includes project proposal, investigative studies, analysis, interpretation of results, written report and presentation.

## AMP3008 Major Project (Chemical Engineering)

This subject provides a framework for you to solve practical problems, conduct research work and/ or develop studies, through a self-managed project. The scope of the subject includes project proposal, investigative studies, analysis, interpretation of results, written report and presentation.

### **AMP3011 Major Project (Veterinary Technology)**

This subject provides a framework for you to solve practical problems, conduct research work and/ or develop studies, through a self-managed project. The scope of the subject includes project proposal, investigative studies, analysis, interpretation of results, written report and presentation.

### **AMP3012 Major Project (Pharmaceutical Science)**

This subject provides a framework for you to solve practical problems, conduct research work and/ or develop studies, through a self-managed project. The scope of the subject includes project proposal, investigative studies, analysis, interpretation of results, written report and presentation.

### **AMP3013 Major Project (Biotechnology)**

This subject covers the essentials required in completing a project through the process of writing a project proposal, performing investigative studies and data analysis, interpretation of results and reporting of outcomes via written report and project presentation.

### **AMP3014 Major Project (Applied Food Science & Nutrition)**

This subject provides a framework for you to solve practical and/ or technical problems, conduct research work and/or develop studies through a self-managed project. The scope of the subject includes project proposal, investigative studies, data analysis and interpretation of results, written report and presentation.

### **AMP3015 Major Project (Baking & Culinary Science)**

This subject provides a framework for you to solve practical and/ or technical problems, conduct product development work and/ or develop studies through a self-managed project. The scope of the subject includes project proposal, investigative studies, data analysis, interpretation of results, written report and presentation.

### **ANT1001 Science in Food Preparation**

This subject illustrates the principles of food science and food preparation, emphasising the functional and structural properties of food constituents, their inter-relationships and their behaviour during food preparation. This subject also integrates the science of cooking with the selection, storage and preparation of fresh and processed foods.

### **ANT1002 Basic Nutrition & Food**

Topics covered in this subject include the roles and importance of macro- and micronutrients, energy balance, the nutritive value of food and recent advances in the field of nutrition. You will be provided with basic understanding and application of human nutrition, food and dietary practices in relation to health.

### **ANT2001 Nutrition Across the Life Span**

This subject covers the nutritional requirements of man during his life span. Topics covered include nutrition in pregnancy and lactation, nutrition for the growing years, adults and elderly.

### **ANT2009 Community Health & Nutrition**

This subject focuses on the main public health and nutrition concerns in various community groups, the risk factors involved and the importance of prevention. It covers the steps involved in the planning and delivery of a health and nutrition promotion program. The methods used to assess the health and nutrition status of a community and the appropriate intervention strategies and activities are also discussed.

### **ANT2010 Principles of Biochemistry & Physiology for Nutrition**

This subject focuses on basic biochemistry and human physiology concepts. The regulation of the integrative metabolic pathways involving glucose, lipid and protein, and their link to adenosine triphosphate (ATP) synthesis is covered in detail. Principles of enzymatic reactions, function and disorders of the immune system are covered as well.

### **ANT3001 Nutrition in Disease**

This subject focuses on the medical nutrition therapy of diet-related diseases. It covers the pathophysiology, causes, risk factors, diagnostic criteria and symptoms of obesity, diabetes and dysphagia as well as cardiovascular, renal, liver and gastrointestinal diseases. Basic principles of nutrition support are also included.

### **ANT3004 Practical Sports Nutrition**

This subject focuses on the importance of nutrition for optimal sports performance. It covers nutrition requirements pre-, during and post-exercise for various sports. The roles of macro- and micronutrients in sports performance and recovery will be explained. The efficacy and safety of popular dietary supplements and ergogenic aids available in the market will also be considered.

### **APH1001 Principles of Pharmacology**

This subject covers the basic principles and knowledge of pharmacology and toxicology. Topics include overview of the drug developmental process, pharmacodynamics, pharmacokinetics, and an overview of toxicology.

### **APH1002 Basic Pathology & Immunology**

This subject introduces general and systemic pathology and the understanding of basic clinical chemistry for screening and monitoring of diseases. Topics include disease mechanisms, structure and functional abnormalities and common clinical chemistry tests.

### **APH1003 Introduction to Pharmacy Practice**

This subject introduces the services provided by pharmacy technicians at hospital and community pharmacies. Topics include drug information resources, good dispensing practice and management of common conditions in therapeutic areas such as nutrition, ophthalmology, otolaryngology and respiratory.

### **APH2001 Pharmaceutical Analysis 1**

This subject equips students with the knowledge on the basic principles and applications of analytical instruments and techniques commonly used in the pharmaceutical industries and analytical laboratories, and the technical skills required to operate instruments for analysis. Basic concepts of laboratory quality management system will also be covered.

## APH2009 Pharmacy Practice 1

This subject equips students with the knowledge and practices on handling clinical enquiries, making appropriate clinical recommendations, processing prescriptions and patient counselling in the therapeutic areas such as dermatology, gastroenterology, endocrinology and infectious diseases.

## APH2010 Pharmacy Practice 2

This subject equips students with the knowledge and practices on handling clinical enquiries, making appropriate clinical recommendations, processing prescriptions and patient counselling in the therapeutic areas such as cardiovascular, musculoskeletal, neurology and psychiatry.

## APH2011 Bioprocess Technology and Analysis

This subject aims to equip students with the basic knowledge and technical skills to perform mammalian cell culture for upstream biopharmaceutical processes. The subject also covers the molecular and analytical techniques used in the biopharmaceutical industry to measure the quantity and quality of biological products.

## APH2012 Pharmaceutical Legislation, Marketing & Management

The subject provides an overview of legislations affecting the pharmaceutical industry. The subject is also designed to provide students with an understanding of basic marketing concepts, tools and techniques pertaining to the commercialisation of pharmaceutical products. Basic business operations of hospital and retail pharmacies will also be included.

## APH2013 Pharmaceutical Unit Operations

This subject emphasises the application of engineering principles in the unit operations commonly employed in the upstream, pharmaceutical industry. Topics covered include reagent handling, dissolution, extraction, distillation, crystallisation, filtration and drying. The subject also covers the various fractionation processes and mechanical operations including solids handling, sieving, milling and comminution. Commonly used equipment in pharmaceutical manufacturing will also be introduced.

## APH3004 Pharmaceutical Manufacturing Technology

This subject equips you with the fundamental knowledge of pharmaceutical downstream manufacturing processes. Topics covered include industrial aspects of drug production, manufacturing techniques and packaging technologies. It also covers solid, liquid and gaseous dosage formulation design and characterisation. The importance of cGMP and the associated regulatory aspects are also covered.

## APH3011 Current Good Manufacturing Practice & Process Improvement

This subject covers the fundamental knowledge and applications of Current Good Manufacturing Practice (cGMP) in the pharmaceutical and biopharmaceutical industries. Topics include an overview of cGMP, documentation and record keeping, contamination control, in-process control, validation, and introduction to process improvement techniques.

## APH3012 Pharmaceutical Analysis 2

This subject covers the knowledge and applications of pharmacopeia test methods to evaluate the quality of active drug substances and finished pharmaceutical products. This subject also provides further knowledge on gas chromatography and high performance liquid chromatography including method development and optimization for various applications such as stability testing of pharmaceuticals. Students will perform test samples analysis, interpretation of test results and data analysis.

## APH3013 Health Management in Patient Care

This subject focuses on the knowledge, communication and facilitation skills to promote medication adherence, use of health screening and monitoring devices, as well as lifestyle modifications for health and disease management. Students will also be introduced to complementary health approaches and trends in healthcare delivery.

## APH3014 Good Manufacturing Practices in Pharmaceuticals/ Biologics

This subject provides the fundamental knowledge and applications of cGMP in the pharmaceutical and biologics manufacturing industries. An overview of cGMP, quality systems, documentation and record keeping, laboratory controls, validation and self-inspection are among the topics that will be covered.

## APH3015 Biopharmaceutical Processing

This subject provides an overview of the biopharmaceutical processing, with emphasis on the unique separation and purification processes applied in the biopharmaceutical industry. Examples of such unit operations include chromatography, membrane chromatography and cross flow filtration. It also covers the fundamental knowledge, applications and legislative requirement of biosafety, biosecurity and risk assessment relating to management of biological and other hazards.

## ASI3024 Student Internship Programme (Applied Food Science & Nutrition)

You will be attached to industries related to your course of study – companies in the food, healthcare or catering industries. You will be required to undertake various tasks and activities as discussed with, and agreed by the participating organisations. Besides training in technical knowledge and skills, emphasis is placed on training in desired professional conduct in areas such as communication (both oral and written), teamwork, problem-solving and self-management.

## ASI3025 Student Internship Programme (Baking & Culinary Science)

You will be attached to industries related to your course of study – companies in the food industry or food and beverage establishments. You are required to undertake various tasks and activities as discussed with, and agreed upon, by the participating organisations. Besides training in technical knowledge and skills, emphasis is placed on training in desired professional conduct in areas such as communication (both oral and written), teamwork, problem-solving and self-management.

### **ASI3026 Student Internship Programme (Biomedical Science)**

This programme involves attachment at industries related to your course of study. You are expected to undertake various activities discussed with and assigned by the participating host organisations. The programme enables you to apply knowledge and skills acquired in the course of your study to solve practical problems in the real workplace. Emphasis is also placed on training of transferable skills such as teamwork, interpersonal, written and oral communication skills.

### **ASI3027 Student Internship Programme (Biotechnology)**

For a period of 19-21 weeks, students are attached to industries related to their course of study, for example, biotechnological, biomedical, pharmaceutical and bioenterprise-related industries. Each student is required to undertake various tasks and activities as discussed with, and agreed upon, by the participating organisations. Besides training in technical knowledge and skills, emphasis is placed on training in desired professional conduct in areas such as communication (both oral and written), team-work, problem-solving and self-management.

### **ASI3028 Student Internship Programme (Chemical Engineering)**

This programme involves a compulsory attachment at a chemical or chemical-related company. It will enable you to apply knowledge and skills to solve practical problems and develop studies or product formulations. Emphasis will be placed on the development of skills such as teamwork, safety awareness, written and oral communication skills.

### **ASI3029 Student Internship Programme (Pharmaceutical Science)**

This programme involves attachment at companies related to your course of study in the pharmacy, pharmaceutical and biopharmaceutical industries. You are expected to undertake various activities discussed with and assigned by the participating host organisations. The programme enables you to apply knowledge and skills acquired in the course of your study to solve practical problems in the real workplace. Emphasis is also placed on training of transferable skills such as teamwork, interpersonal, written and oral communication skills.

### **ASI3030 Student Internship Programme (Veterinary Technology)**

This programme involves attachment at industries related to your course of study. You are expected to undertake various activities discussed with and assigned by the participating host organisations. The programme enables you to apply knowledge and skills acquired in the course of your study to address practical problems in the real workplace. Emphasis is also placed on training of process skills and professional conduct such as teamwork, time management, and interpersonal, written and oral communication skills.

### **AVT1004 Wildlife Ecology & Conservation**

This subject covers the principles of ecology as well as ecosystems and the study of plant and animal distributions including their interactions with one another and their environment. Theoretical and practical skills used in the study of conservation biology in relation to nature and marine conservation would also be covered.

### **AVT1006 Animal Anatomy & Physiology**

This subject covers an introduction to veterinary anatomy related to systematic, applied and comparative anatomy. It also covers veterinary physiology in relation to anatomy, using the basic principle of form and function, to explain the functions of the various organ systems.

### **AVT1007 Animal Nutrition, Feed & Feeding**

This subject focuses on concepts and principles of nutritional requirements for both aquatic and selected domestic animals. Students would also learn formulation techniques, principle of feed processing technology, feed ingredients and feed additives for application in growth and development, health, physical performance and appearance.

### **AVT1008 Developmental Biology**

This subject covers embryology and organogenesis with emphasis on the fundamental developmental processes shared by vertebrate embryos. Topics covered include gametogenesis, meiosis and fertilisation, embryonic stages of development and/ or mechanism of differentiation that encompass cleavage, germ layer formation, neurulation, axonal specificity and organ formation, embryonic and adult stem cells, sex determination, metamorphosis and ageing.

### **AVT1009 Animal Care, Husbandry & Behaviour**

This subject focuses on animal welfare and care of companion animals and selected animals. Care for the young and senior animals would be covered. Handling techniques with basic understanding of animal behaviour under normal conditions and stress would also be emphasised as part of animal care and behavioural management.

### **AVT2006 Veterinary Immunology**

This subject covers immunology of animals including fish. Topics covered include an overview of the immune system across species, organs involved, structure and function of immunoglobulins, and cell mediators of immunity, normal immunity in animals, as well as dysfunction of the immune system. The major histocompatibility complex (MHC), antigen processing and presentation, cell signalling molecules (cytokines), complement system, immune responses to infection and immunopathologies (hypersensitive reactions), serological testing, biology of B-cells and T-cells, antigen-antibody interactions, transplantation and tumour immunology.

### **AVT2009 Veterinary Pharmacology & Toxicology**

This subject covers the basic principles and knowledge of pharmacology and toxicology. Topics include an introduction to pharmacology, pharmacodynamics, pharmacokinetics and toxicology.

### **AVT2012 Molecular & Cell Technology**

This subject is designed to provide theoretical and practical knowledge in the areas of molecular biology and cell culture technology. It covers techniques and applications used to assess and manipulate deoxyribonucleic acids (DNA), ribonucleic acids (RNA) and proteins in veterinary medicine and aquaculture, with an emphasis on diagnostic and transgenic technology. The subject also introduces you to basic cell culture techniques as well as its potential applications in developing in vitro-grown tissue and organs for veterinary medicine. You will also be exposed to recent advances and future trends in molecular biology and cell culture technology such as the use of CRISPR/Cas9 in the development of transgenic/knockout animals.

## AVT2016 Animal Diseases & Clinical Pathology

This subject covers an introduction to animal diseases of veterinary significance. Topics include pathogenic agents, their modes of action, and the observed symptoms. It also covers principles of pathology including etiology, cause and termination of disease other than fundamental knowledge on general and systemic pathology.

## AVT2017 Aquatic Care, Health & Diseases

This subject covers knowledge and skill training in care and husbandry, disease detection, identification and prevention for common freshwater and marine aquatic species.

## AVT2018 Clinical Diagnostic Techniques

This subject covers knowledge and skill training on various types of veterinary diagnostic procedures. Topics include clinical chemistry and haematology, skin examination, faecal analysis, urinalysis, cytology and other techniques of relevance to working veterinary clinics and animal hospitals. Techniques on basic necropsy or post-mortem procedure, histochemical and histological techniques will also be covered.

## AVT2019 Clinical Practicum

This subject will enable students acquire and perform a variety of medical procedures in small animal practice setting. Students will perform skills in anaesthesia, surgical assisting, veterinary practice management, radiography, sample collection and laboratory analysis, reception, patient assessment and treatment administration. Students will be attached on and off site veterinary clinics or hospitals.

## AVT2020 Surgery, Anaesthesia & Veterinary Practices

This subject covers the principles of surgery and anaesthetic management for laboratory and selected companion animals. Topics covered include anaesthetic administration, monitoring and recovery from anaesthesia, basic suturing skills, preoperative preparations and postoperative care of animals. Fundamentals on good dispensing practice, simple patient counselling skills, record keeping and veterinary reception would also be covered.

## AVT2021 Molecular Genetics & Genomics

This subject is designed to provide basic theoretical and practical knowledge of molecular genetics and genomics. It covers fundamental concepts of the molecular composition and structure of deoxyribonucleic acids (DNA), ribonucleic acids (RNA) and the gene. You will be introduced to the concept of the central dogma of biology, DNA replication and gene expression. The subject will also introduce you to techniques of DNA sequencing and use of basic bioinformatics tools for DNA analysis. You will also be introduced to whole genome sequencing and its application in personalised veterinary medicine. The subject also includes studies on the potential applications, present use and future trends in molecular genetics and genomics.

## AVT3010 Animal Breeding & Reproduction

This subject covers animal breeding programmes, reproduction fundamentals and techniques. You will also be introduced to analysis and experimental design in animal breeding.

## AVT3011 Laboratory Animal Science & Technology

This subject focuses on care, animal behaviour, handling and husbandry requirements of small and large animals often used as animal models for study. You will also acquire experiential learning through husbandry rotations at animal facilities. Techniques used in animal model study will also be introduced

## AVT3012 Aquaculture Product Quality & Safety

This subject provides students with knowledge and skill based training in harvest and post-harvest processes and food product quality and safety. The importance of good culture environment and postharvest technology on fishery product quality and safety will be emphasised. Innovative technology for enhancing aquatic health and better quality produce will be covered.

## AVT3013 Aquaculture Technology

This subject focuses on good aquaculture practices and management, culture systems, breeding, reproduction and technology important for sustainable aquaculture. Topics covered include water quality management, feed and feeding management, hatchery, larviculture, grow-out and broodstock, breeding and reproduction. Basic engineering principles and system design applicable for aquaculture will also be emphasised. Students will receive hands-on training in farm operation and management.

## GCC1001 Current Issues & Critical Thinking

This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals.

## LEA1011/1012/1013 Leadership: Essential Attributes & Practice (LEAP)

LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.

## LSW1002 Sports & Wellness

This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.

## MCR1001/MCR1002/MCR1003 Career Readiness

This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. It aims to cultivate the necessary attitudes, skills and knowledge to conduct yourself professionally, adapt and respond to the changing job market environment.

## TGL1001 Guided Learning

This is a subject where you will be free to pursue an area of interest through a self-directed approach, guided by staff. You will be expected to demonstrate a sense of curiosity for learning, initiate an opportunity to acquire knowledge and skills, and reflect on your learning journey throughout the subject.



# School of Business

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The 11 courses offered by the School promise you an enriching education that will help you become a lifelong learner, future-oriented creator and values-centred leader. One clear objective is to prepare you for meaningful careers in a dynamic economy.

### **The heart of business is our students.**

At School of Business, we believe that every individual has the capacity and capability to do well and contribute to the global community. We help students realise their full potential to be drivers of business innovation and be ready for the future economy in their respective business domains.

### **We strive to meet the industry transformation needs.**

Our diplomas come with a repertoire of domain expertise in trade & connectivity, modern services and lifestyle services. Learning comes alive through strategic collaboration with the industry as the School engages a diverse range of industries as our partners in education. Our students will be given opportunities to work on real-life projects of many renowned local and global companies.

### **Our curricula aim to make our students resourceful, resilient and ready for the business workforce.**

We use progressive learning methods, including group projects, consultation sessions and e-learning that enable the development of essential life skills and help hone creative thinking, communication skills and entrepreneurial capabilities. Our goal is to make you resourceful, resilient and ready for the fast changing business landscape. To better prepare you for the working world, the wide-ranging centres of excellence allow you to undergo practical and hands-on simulated training.

### **A well-rounded education is to realise your full potential.**

The School offers you a rich and fulfilling learning experience by providing a well-rounded education with strong emphasis on co-curricular activities and enrichment programmes. Whether conducted on campus, out of campus, locally or abroad, you are encouraged to participate in community service projects, industry competitions or even embark on entrepreneurial initiatives. All these experiences, coupled with a caring and nurturing learning environment provided by your Care Persons and lecturers, will enable you to realise your full potential during your three years at TP.

# Centres of Excellence

## **Accounting & Finance Hub @ TP**

The A&F Hub is equipped with office automation applications and accounting software for our students to be trained in using IT tools to process accounting transactions, track financial performances and perform financial analytics. Through hands-on learning of Thomson Reuters, a financial database, students can also explore the exciting financial markets and access real-time information such as share prices, exchange rates and financial news worldwide.

## **Kelly Services Career Centre**

The centre operates as a branch of a global staffing corporation, Kelly Services (a Fortune 500 company and listed on NASDAQ). It provides students with hands-on training in recruiting and staffing practices.

## **Business Enterprise Centre (BEC)**

The centre will be the learning laboratory for International Business and Entrepreneurship. Students will use BEC for competition planning, generation of new business ideas, and industry collaborations. BEC is equipped with professional software for students to hone their skills in global business planning and implementation, as well as facilities which allow students to communicate with industry partners from around the world.

## **LOM Centre**

This centre houses laboratories that simulate the entire supply chain. It includes systems, softwares and games to teach students about execution, planning & optimisation functionalities in the supply chain and logistics operations.

## **BrandStudy**

Understanding the world of branding is a key competitive advantage for our marketing graduates. The BrandStudy was set up with this in mind. Subjects such as Branding and Creative Marketing Project are conducted in this well-equipped facility. It also provides the perfect setting for students to meet real life clients, as well as develop and produce marketing strategies to build their clients' brand image.

## **iLaw Chambers**

Equipped with specialised law office management software, the iLaw Chambers is set up with the intention of exposing students to the full workflow involved in running a legal matter. It is used to train students in the day-to-day running of a typical law firm, from the moment a client brings in a new matter to the time the case is closed and the client billed.

## **1st Avenue**

An on-campus retail training store managed by students, 1st Avenue helps to develop students' entrepreneurial acumen through hands-on retailing store management. The facility will be used by students to develop skills and expertise in managing all aspects of retail operations.

## Business Learning Spaces and Business Technology Labs

The Business Learning Spaces and Business Technology Labs are equipped with state-of-the-art multimedia facilities to enable students to engage in collaborative learning and research, explore business application software, programming language and tinker with emerging technologies. Besides workstations and an intelligent classroom management system, students may access the network and other IT facilities using notebooks and mobile devices.

## BIT Studio

The Business IT Studio is equipped with leading edge technologies for students to learn practical skills and work on interactive digital media projects. Visitors will be introduced to the diploma of Business IT and the projects carried out by students at the Business IT Studio. They can discover what BIT students can achieve from the course and see the interesting e-commerce websites and phone apps created by BIT students for companies like POSB, Soup Spoon and our very own 1st Avenue shop in TP's School of Business.

## Television Studio

This 200 square metre studio is fully-equipped with broadcast equipment that allows students to learn how to produce television programmes and news bulletins. It is also equipped with postproduction facilities for online and offline editing.

## Radio Studio

This studio provides students with practical training in using industry-standard equipment. The radio facility comprises a training studio, an on-air studio and several audio production suites. Students also broadcast live from the on-air radio studio for MediaBiz Radio, the campus radio station.

## Publishing Room

This facility replicates the real print journalism environment. Students use the facilities to produce a regular campus newspaper and gain valuable hands-on experience working in a publishing and news room set-up.

## Temasek Tourism Academy

Hospitality & Tourism Management (HTM) and Leisure & Events Management (LEM) students will enjoy and experience hands-on training at the seven-storey Temasek Tourism Academy (TTA). Fronting the scenic Bedok Reservoir, the TTA comprises a lobby and its observation room, learning suite, tourism technology rooms, layout room, event hall, and event management ideation rooms among others. The TTA will collaborate with key industry partners to ensure that training is real, relevant and rewarding, culminating in a learning node that is at the forefront for tourism and leisure education.

## Temasek Culinary Academy

This comprehensive training academy serves our culinary students in all their needs from learning and studying to hands-on training. There are five modern kitchens; two contemporary dining outlets; The Tasting Studio; student lounge, classrooms, project rooms and locker facilities. The kitchens comprise the Garde Manger (Cold Kitchen), Butchery, Production (Skills Kitchen), Restaurant, and Bakery & Pastry kitchens. These, together with the dining outlets "Sugarloaf", a quick-service café, and "Top Table", a full-service restaurant, provide the training ground where students hone their skills in food preparation and food service. Our academy is the ideal platform to train them to be future leaders in the food & beverage industry.

# Accounting & Finance



With the Government's commitment to promote Singapore as a financial centre and wealth management hub, the demand for finance professionals will undoubtedly continue to increase. The emphasis on corporate governance and the vision to transform Singapore into a global accountancy hub also fuel the need for qualified accountants.

Our course offers a dual specialisation in both Accounting and Finance, giving you wide career and further study options after you graduate. The course curriculum is robust, practical and industry-relevant to instil confidence and equip you with technical and soft skills for the dynamic accountancy and financial services sectors. Besides the opportunities for you to develop problem-solving, communication and service skills, you will also experience hands-on learning through industry and real-life projects. This is in addition to the application of financial databases, office applications and accounting software widely used in the industry.

You get to choose your preferred Accounting or Banking and Investment specialisation to pursue interests beyond your diploma course.

A key focus in the first year is to provide a solid grounding in general business and management disciplines like economics,

management, statistics and financial accounting. The next two years build on core industry knowledge and skills through subjects like Business Finance, International Finance, Investment, Management Accounting, Taxation, and Corporate Reporting & Audit. In the final year, you will select electives from a range of Accounting, Banking and Investment subjects to fit your preferred career path. Your knowledge and skills will also be applied in the industry through a structured internship programme with one of our strategic industry partners, which include the Big 4 or large local accounting firms, banks and financial institutions, and many reputable multinational companies.



TP trains its students in the practical aspects of accounting and finance and meets the needs and demands of the accounting and fast-growing finance industry. The graduates have achieved high standards. The proof of the pudding is in the eating and we have been very satisfied with those who have joined us.

Kon Yin Tong  
Managing Partner  
Foo Kon Tan LLP

## Career Opportunities

Exciting career opportunities await you in the areas of accounting, audit, taxation, finance, banking, investment, insurance, stock-broking and wealth management. You could be employed in the Big 4 or local accounting firms, banks or other financial institutions, and accounts/ finance departments of companies in diversified industries.

Many of our graduates pursue further studies in accountancy and business programmes offered by local universities and enjoy credit transfers to many overseas universities in Australia, United Kingdom and New Zealand. They are also granted exemptions from selected modules of professional qualifications such as the ACCA, CIMA, ICAEW, ICSA examinations and industry-linked certifications such as CMFAS examinations. A new Earn-and-Learn Programme leading to the Advanced Diploma in Accountancy also provides a new pathway for our graduates to embark on the Singapore QP Programme to attain the Chartered Accountant of Singapore designation.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 72 credit units
Elective Subjects	: min 12 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/ Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/ Chinese/Malay/Tamil, Media Studies (English Language), Media Studies (Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3037	Student Internship Programme	3	16	

*\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.*

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BAF1011	Cost & Management Accounting 1	1	4
BAF1012	Financial Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1007	Business Economics	1	4
BLM1007	Business Law	1	4
BLO1001	Business Statistics	1	4
BAF2002	Business Finance	2	4
BAF2005	Cost & Management Accounting 2	2	4
BAF2006	Fundamentals of Investment	2	4
BAF2007	International Finance	2	4
BAF2011	Company Accounting	2	4
BAF2018	Fundamentals of Taxation	2	4
BAF2022	Information Systems & Financial Analytics	2	4
BAF2025	Corporate Reporting	2	4
BAF3008	Financial Analysis	3	4
BAF3021	Risk Management	3	4

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Accounting Cluster</u>			
BAF2023	Auditing	2	4
BAF3014	Practice of Taxation	3	4
BAF3019	Advanced Accounting	3	4
<u>Investment &amp; Banking Cluster</u>			
BBT2013	Financial Technology*	2	4
BAF2021	Personal Financial Planning	2	4
BAF2024	Banking Products & Services*	2	4
BAF3016	Security Analysis & Portfolio Management	3	4
<i>*select one</i>			

# Business Studies Grouping

(Business/Logistics & Operations Management/Marketing)



This is a common first-year course that offers you the unique opportunity to study various core business subjects in your first two semesters and to discover your strengths, aptitude, interests and career aspirations. During this time, you can explore the career opportunities and requirements of the three diplomas before choosing one course.

## Course Option for Junior and Senior Years

Towards the end of your first year, you will opt for one of the following three diploma courses:

- Business
- Logistics & Operations Management
- Marketing

Each of these diploma courses is a specialised area of study relevant to the industry in which you aspire to start your career. You will progress to the respective courses from your third semester of study. Please see the sections on the respective courses in the following pages for more information.

## Curriculum for Freshman Year

Students enrolled in this grouping take the following core subjects in the Freshman year of study:

- Business Accounting
- Business Statistics
- Business Technology & Analytics
- Career Readiness 1
- Communication & Information Literacy
- Leadership: Essential Attributes & Practice 1 (LEAP1)
- Global Studies
- Innovation & Entrepreneurship
- Microeconomics
- Macroeconomics
- Marketing Fundamentals
- Principles of Management
- Sports & Wellness

# Business



This course will give you a broad-based and holistic business education in international business, management, marketing and finance. The flexible and relevant curriculum covers the core knowledge and skills that supervisors and executives are expected to have in business and management.

Throughout your studies, you will be challenged with real-life business problems and assignments and develop creative and critical thinking, problem-solving, analytical, teamwork and communication skills. Hands-on learning opportunities are available through the Kelly Services Career Centre, Business Enterprise Centre, as well as the Enhanced Student Internship Programme. Our students are given many opportunities to maximise their international exposure through overseas study trips and Overseas Student Internship Programmes.

The course provides graduates with a strong foundation of business and management concepts, covering core business-related disciplines. Subject areas covered include Management, Business Accounting, Economics, Business Statistics, Marketing, Business Technology & Analytics, Human Resource Management, Business, Finance, Management Accounting, Entrepreneurship, International Business, Communication, and

Business Law. In the latter half of your course, you can choose specialisations in one out of six business elective clusters: Entrepreneurship, International Business, Human Resource Management, Tourism & Leisure Business, Finance & Investment, and Banking.



The course produces quality graduates with sound business knowledge and entrepreneurial mind-set. Having a dual specialisation in 2 business elective clusters to cater to their individual interests and aspirations, these competent graduates are equipped with relevant skills to meet the demands of various industries and businesses in today's fast-changing and competitive environment.

Foo See Yang  
Managing Director  
Country Head Singapore  
Kelly Services Singapore

## Career Opportunities

Trained with a global outlook, you will be equipped to take on supervisory and executive level positions in a wide range of companies and organisations. By the end of the course, you are expected to possess relevant business knowledge and skills, be well-versed in IT, and possess good interpersonal skills.

Our graduates enjoy a wide choice of job positions in various industries in the public and private sectors. You can take on jobs in international business, tourism, banking, finance, human resource management, media, manufacturing, government and services. There is a continuous demand for our graduates in Singapore and the region. You can get credit exemptions from reputable local and overseas universities.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 60 credit units
Elective Subjects	: min 24 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/ Art & Design, Business Studies, Combined Humanities, Commerce/ Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/ Chinese/Malay/Tamil, Media Studies (English Language), Media Studies (Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3034	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLM1007	Business Law	1	4
BLO1001	Business Statistics	1	4
BRM1005	Marketing Fundamentals	1	4
BAF2002	Business Finance	2	4
BAF2008	Management Accounting	2	4
BBS2001	Human Resource Management	2	4
BBS2009	Managing Small & Medium Enterprises	2	4
BBS3010	Enterprise Business Plan	3	4
BMK3005	International Business	3	4

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>International Business Cluster</u>			
BAF2007	International Finance	2	4
BBS2015	Business in Asia	2	4
BLO3015	Global Trade & Singapore Logistics	3	4
<u>Tourism &amp; Leisure Business Cluster</u>			
BHT2005	Event Management	2	4
BHT2010	Special Interest Tourism	2	4
BHT2012	Travel & Leisure Business	2	4
<u>Finance &amp; Investment Cluster</u>			
BAF2006	Fundamentals of Investment	2	4
BAF2021	Personal Financial Planning	2	4
BAF3016	Security Analysis & Portfolio Management	3	4
<u>Human Resource Management Cluster</u>			
BBS2010	Talent Acquisition & Management	2	4
BBS2012	Total Rewards Management	2	4
BBS3011	Human Capital Development	3	4
<u>Banking Cluster</u>			
BAF2007	International Finance	2	4
BAF2024	Banking Products & Services	2	4
BAF3021	Risk Management	3	4
<u>Entrepreneurship Cluster</u>			
BBS2013	Startup Launchpad	2	4
BBS2014	Strategies in e-Business	2	4
BBS3005	Product Development & Innovation	3	4
<u>Diploma Elective Subjects</u>			
BLO1002	Business Calculus	1	4
BMK2017	Consumer Insights	2	4

# Logistics & Operations Management



Any company that is involved in making, storing or selling a product, or providing a service, needs people with knowledge and skills in logistics and operations. The employment opportunities and career prospects are abundant as organisations extend their geographical reach and influence. Companies need trained people who understand the nature of logistics and supply chain in an increasingly connected world.

Besides TP Fundamental (TPFun) subjects that aim to nurture you as a Lifelong Learner, Future-oriented Creator and Values-centred Leader, the course provides you with relevant knowledge and up-to-date skills for the exciting logistics industry.

The course provides you with a strong business foundation in the Freshmen year through subjects such as Business Accounting, Business Technology & Analytics, Business Statistics, Microeconomics, Macroeconomics, Principles of Management and Marketing Fundamentals. In the Junior year, you will develop core Logistics & IT competencies through both quantitative and qualitative subjects such as Supply Chain Management & Technology, Operations Management, Purchasing Principles & Practice, Quantitative Analysis for Business, Distribution Centre Management, Materials Management, Transport & Freight

Management, International Freight Practices, Enterprise Resource Management and Business Process Management & Simulation.

In order to help you consolidate your learning of relevant knowledge, integrate the skills acquired from the course, and to better prepare for the practicality of logistics and operations activities in the real world, you will be required to participate in the 20-week SIP and to undertake an industry-based project in your Senior Year. To broaden your international trade knowledge and entrepreneurial skillsets in a globalised economy, you will also be introduced to International Finance and can opt for an elective in Business Startup Launchpad or Marketing Account Management.

The overall emphasis of the training is guided by a practical approach, which relies on up-to-date computer-based learning materials and methodologies, and software application packages used in the industry to enhance digital literacy. You will also develop communication, interpersonal, team and problem-solving skills.



The logisticians of today are relentlessly finding ways to transform the industry by embracing new technological innovations to be more efficient and productive. The opportunities provided by the advent of Internet of Things and cloud technology, as well as the ability to manage and manipulate Big Data are opening up new possibilities in the logistics sector that we once could only imagine. This offers millennials the fortitude to think creatively in making major changes that can potentially result in game-changing breakthroughs to compete well as the coming years unfold.

Stanley Lim  
Chairman  
Singapore Logistics Association

## Career Opportunities

The multi-disciplinary nature of the course prepares you for a wide range of career opportunities with local and multinational businesses in industries with Logistics & Supply Chain operations such as freight forwarders, shippers, retailers, hospitals, banks and manufacturers. Entry level positions include Business Analyst, Buyer, Purchasing Officer, Customer Service Officer, Import/ Export Coordinator, Inventory Controller, Operations Executive, Supply Chain Analyst, Transport Executive and Warehouse Executive. Besides opportunities in the logistics industry, you can also explore other career opportunities in the Trade & Connectivity cluster including wholesales trade and transport sectors.

You will be well-prepared to pursue your passions or further skills-deepening opportunities in post-diploma programmes such as the Earn & Learn Programme in logistics and other related sectors, or undergraduate courses with universities.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 24 credit units
Diploma Subjects	
Core Subjects	: 80 credit units
Elective Subjects	: 4 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/ Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/ Chinese/Malay/Tamil, Media Studies (English Language), Media Studies (Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3031	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

#### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BRM1005	Marketing Fundamentals	1	4
BAF2007	International Finance	2	4
BBT2004	Enterprise Resource Management	2	4
BLO2004	Operations Management	2	4
BLO2005	Purchasing Principles & Practice	2	4
BLO2010	Distribution Centre Management	2	4
BLO2011	Materials Management	2	4
BLO2013	Supply Chain Management & Technology	2	4
BLO2014	Quantitative Analysis for Business	2	4
BLO2015	Transport & Freight Management	2	4
BLO3016	International Freight Practices	3	4
BLO3023	Business Process Management & Simulation	3	4
BMP3007	Major Project	3	8

#### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BBS2013	Startup Launchpad	2	4
BMK2021	Marketing Account Management	2	4

# Marketing



Markets are different, but marketing is universal and applicable to a job in any part of the world. In fact, all companies ranging from hotels, banks, airlines to government ministries and agencies require marketing and branding expertise to grow their businesses and be leaders in their respective fields. Today, marketing is one of the most exciting, creative and important aspects of any business practice.

The course develops your knowledge and skills through a rigorous curriculum that meets the requirements of a knowledge-based economy. It provides you with practical and innovative learning experiences to prepare you for a career in this field.

The Freshman-year curriculum is oriented towards a fundamental understanding of the business environment and teaches basic business skills and concepts. In your Junior year, the curriculum focuses on the development of functional competencies in areas such as marketing analytics, consumer insights, digital & social media marketing and integrated marketing communications. The Senior-year curriculum focuses on branding, public relations in practice, contemporary topics in digital marketing and major project to prepare you for entry into the professional marketing environment.

Through activities such as client-based projects, overseas study trips, local field trips, industry talks and enrichment courses, you will see the transition of textbook theories to the practicalities of the real world. Our facilities, such as The BrandStudy, also add to your real learning by creating the actual working environment.



We are deeply impressed by your students' high creative energy, strong problem-solving skills, and great enthusiasm. Their proposal to market the PAssion POSB MasterCard® Debit Card to the youth segment is truly insightful and relevant. This is a testimony to the success of your course in equipping students with the critical competencies to meet the dynamic needs of our industry.

Mr Sayvious Ong,  
Vice President & Head of Debit Cards  
DBS Bank Ltd

## Career Opportunities

This course opens the door to a varied range of career opportunities. As you are trained to be creative problem solvers with strong presentation skills, employment prospects are bright in a wide range of challenging fields such as branding, advertising, marketing communications, events marketing, digital & social media marketing, public relations, trade and consumer account management and marketing.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Core Subjects	: 84 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/ Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/ Chinese/Malay/Tamil, Media Studies (English Language), Media Studies (Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3033	Student Internship Programme	3	16	

*\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.*

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BRM1005	Marketing Fundamentals	1	4
BMK2016	Marketing Analytics	2	4
BMK2017	Consumer Insights	2	4
BMK2018	Integrated Marketing Communications	2	4
BMK2019	Creative Marketing Project	2	4
BMK2020	Experiential Marketing	2	4
BMK2021	Marketing Account Management	2	4
BMK2022	Product & Services Marketing	2	4
BMK2023	Digital & Social Media Marketing	2	4
BMK2024	Marketing X Project	2	4
BMK3016	Branding	3	4
BMK3017	Public Relations in Practice	3	4
BMK3018	Contemporary Topics in Digital Marketing	3	4
BMK3015	Major Project	3	8

# Business Information Technology



This course opens the doors for students who envision themselves to be the catalyst of business growth through the alignment of Business and Information Technology.

Look forward to acquiring foundational business knowledge such as Accounting, Economics and Management and deepening that knowledge by focusing on one of six domains in Business Management, Customer Insight, Tourism & Leisure Business, Logistics, Entrepreneurship or Digital Media Design. As a business technologist in training, you will learn to harness technological solutions such as Enterprise Resource Planning (ERP) and Supply Chain Management (SCM) systems to add value to business verticals like Financials, Logistics and Customer Service. You can also play a key role in assisting businesses to gain an unparalleled edge by harnessing the power of Data Mining and Social Media Analytics.

Your knowledge of business fundamentals, depth of view of industry domains, coupled with your technological know-how will enhance your employment prospects and position you for careers in business, IT as well as one that plays the role of aligning the two. This course emphasises experiential learning. Through projects, role-play, company field trips, overseas industrial visits, business simulations and a 16-week internship programme, you will

be working with industry veterans and gaining real-world working experience even before graduation. You may even find the opportunity to do your internship overseas and to perform various roles such as business analysis, management of information systems and software development. With knowledge acquired from both the School of Business and the School of Informatics & IT, you will learn from the best of both worlds to be well poised to kick-start an exciting career transforming businesses.



Talent development is a key priority for SAP. We remain committed to address the IT talent crunch by developing qualified graduates grounded in SAP technologies shaping business today. The learning of SAP in TP's Diploma of Business IT will enable students to help enterprises address real-world business challenges, thus equipping them with the critical skills for careers and opportunities.

Khor Chern Cheun  
Managing Director  
SAP Singapore

## Career Opportunities

You will be adept at both business and IT, and bridging the gap between them. Graduates from the course have found careers in various domains; ranging from banking, financials, trading, logistics and manufacturing. Armed with business acumen and a technological mind-set, you can start your career as a business analyst, data miner, ERP/ CRM analyst, pre-sales analyst, project coordinator, account executive, marketing executive and more. You can also become a well-recognised business IT consultant by acquiring professional certifications like the SAP Certified Business Associate awarded by the SAP University Alliance Programme in the course of your study.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Subjects	
Core Subjects	: 73 credit units
Elective Subjects	: min 12 credit units
Total Credit Units Completed	: min 121 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Human & Social Biology, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

*Note: Applicants with complete/full colour appreciation deficiency are not eligible to apply. Applicants with partial colour appreciation deficiency may apply.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3016	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1006	E-Business Management	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BRM1005	Marketing Fundamentals	1	4
CFI1Z01	Database Management Systems	1	5
CIT1C09	Web Programming	1	4
BBT2002	Open Technology & Business Systems	2	5
BBT2004	Enterprise Resource Management	2	4
BBT2005	Data Mining & Social Media Analytics	2	4
CIA2C08	System Analysis & Design	2	4
BBT3005	Business Information Systems Security & Audit	3	4
BBT3010	Project Management	3	3
BMP3003	Major Project	3	8

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Digital Media Design Focus</u>			
BCM1012	Essentials of Graphic Design	1	5
BCM2014	Digital Media Production	2	4
<u>Business Management Focus</u>			
BAF2016	Management Accounting & Finance	2	4
BBS2001	Human Resource Management	2	4
<u>Entrepreneurship Focus</u>			
BBS2009	Managing Small & Medium Enterprises	2	4
BBS3005	Product Development & Innovation	3	4
<u>Customer Insight Focus</u>			
BMK2001	Advertising & Promotion	2	4
BMK2005	Marketing Research	2	4
<u>Tourism &amp; Leisure Business Focus</u>			
BHT2005	Event Management	2	4
BHT2012	Travel & Leisure Business	2	4
<u>Logistics Focus</u>			
BLO2004	Operation Management	2	4
BLO3015	Global Trade & Singapore Logistics	3	4
<u>Free Diploma Electives</u>			
BLO1002	Business Calculus	1	4
BLM2007	Legal Aspects of IT	2	4
BMK2015	Customer Relationship & Services Marketing	2	4
BBT3007	Outsourcing Management	3	4
BBT3006	Business Strategies in IT	3	4
BBT3008	Business Intelligence	3	4
BBT3009	Enterprise Applications	3	4

# Communications & Media Management



The communication specialists of tomorrow will have the skills necessary to function effectively in any area of the media and its related industries. Graduates will be equally proficient in any chosen medium and will be able to transcend the divide between print, broadcast and digital media.

This course combines practical, hands-on training with conceptual and critical thinking skills so that you will be able to adapt to the rapidly-changing media world. Regardless of the medium chosen, you will be armed with the fundamental journalistic, communication, media production and management skills to be effective in your chosen fields. You could also explore a career in other media-related businesses such as public relations and marketing communications.

The course structure places emphasis on the essential aspects of the media business and on communication trends. You will be equipped with core business and media skills anchored on a solid grounding in journalism in your Freshmen year. Juniors will be comprehensively trained in the fundamentals of digital media, audio, radio, video and television production in the second year where you will also be introduced to cross platform communication. In the first semester of your Senior year, you will be required to complete a six-month internship

programme with media and media-related companies such as CNBC, MediaCorp, Singapore Press Holdings or perform marketing communication functions in other industries. In the second semester, you will work on a client-driven major project to further develop your media related skills in addition to studying business law.



Our interns from CMM are creative thinkers, proactive team players and effective communicators who are savvy across different mediums. The interns that I had a chance to work with were motivated to learn as much as they could and a valuable addition to our team. Their enthusiasm for the work and the people they work with showed maturity and professionalism.

Ip Wai Yin  
Senior Manager  
Golin  
Singapore

## Career Opportunities

Besides the mass media, graduates are likely to find employment in areas such as broadcast and digital production, new media production, public relations, advertising and promotions, corporate communications, as well as, marketing communications.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Core Subjects	: 84 credit units
Total Credit Units Completed	: 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1)*	Grades 1 - 4
Mathematics (E or A)	Grades 1 - 7
Any three other subjects	Grades 1 - 6

Note:

To be eligible for selection, applicants must also have sat for one subject listed in this group: Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Media Studies (EL), Media Studies (CL), Music.

And another different subject listed in this group: Additional Mathematics, Art/Art and Design, Business Studies, Chinese, Combined Humanities, Commerce, Commercial Studies, Creative 3D Animation, Design & Technology, Design Studies, Economics, Elementary Mathematics, Food & Nutrition, Geography, Higher Art, Higher Chinese/Malay/Music/Tamil, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Malay, Media Studies (EL), Media Studies (CL), Music, Principles of Accounts, Tamil.

\* *Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 3 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3026	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BCM1006	Media & Society	1	4
BCM1014	Media Scriptwriting	1	4
BCM1015	Fundamentals of Journalism	1	4
BCM1016	Essentials of Graphic Design	1	4
BEC1007	Business Economics	1	4
BLM1007	Business Law	1	4
BRM1005	Marketing Fundamentals	1	4
BCM2019	Digital Journalism	2	4
BCM2020	Video Production	2	4
BCM2021	Introduction to Audio Production	2	4
BCM2022	Multi-Camera Production	2	4
BCM2023	Radio Studio Production	2	4
BCM2024	Media Research & Analysis	2	4
BCM2025	Photojournalism	2	4
BCM3011	Major Project	3	8
BCM3012	Digital Content Management	3	4
BCM3013	Digital Media Production	3	4

# Culinary & Catering Management



The course sets out to nurture aspiring chefs, train future restaurateurs and help you start up your ideal café. The food & beverage industry in Singapore and the region is set to grow in the next decade and beyond. Conceived against this exciting backdrop, this course will propel you into a rewarding and creative world with exciting career opportunities.

The course will groom your passion in the culinary, baking and pastry arts with our experienced lecturers and instructors, award-winning chefs and master chefs from the Culinary Institute of America. You will be well-equipped with business knowledge, culinary and service skills to enable you to operate food & beverage outlets, or manage your very own restaurant or café.

Be ready to learn about food science and product knowledge, gastronomy, wine and beverage and business management skills, and to develop an understanding of restaurant operations. At the core of the course, your culinary and service skills will be honed through hands-on practice in our modern kitchens and restaurants in our Temasek Culinary Academy.

The course also covers more advanced areas of study such as productivity and revenue management, food business innovation, and marketing for the restaurant and catering industries. In your senior year, you will undergo a 24-week internship

to gain relevant industry experience in a commercial environment. Upon completion of the course, you will have multiple options to fulfil your culinary ambitions.



The Lo & Behold Group's vision is to develop the next generation of leaders in hospitality. To achieve this, we are constantly on the lookout for passionate professionals who share our love for the industry. The Diploma in Culinary & Catering Management produces graduates who are knowledgeable and truly passionate about what they do. We are happy to count many of them amongst our colleagues today.

Andrew Ing  
Chief Operating Officer  
The Lo & Behold Group

## Career Opportunities

Our broad-based training grooms you to be highly versatile food & beverage professionals. Career opportunities include junior executive positions in food & beverage service, production and distribution in hotels, restaurants, cafés, catering companies and other food & beverage-related enterprises.

You will also have the option to further your studies in universities in Singapore and abroad with credit exemption or advanced standing. Our diploma is well-recognised by many renowned universities and institutions such as the Culinary Institute of America.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 64 credit units
Option Subjects	: 16 credit units
Elective Subjects	: min 4 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Media Studies (English/Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Ingggris).*

### Note:

- *As this course focuses on several aspects of food & beverage operations and management, the curriculum includes exposing students to a wide variety of food & beverage products including alcohol, meats (e.g. beef and pork) and their by-products. Our kitchens and restaurants are not Kosher or Halal certified. Although tasting is optional, students will be required to handle and serve these products, in addition to washing non-Kosher/Halal equipment.*
- *Applicants with medical conditions and/or physical disabilities which affect best safety and sanitation practices or the wearing of prescribed uniforms should declare them and such applicants should submit a qualified doctor's certification of fitness for enrolment.*
- *Students will also need to purchase cookbooks, uniforms, knife sets, etc., which are not included in the tuition fee.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3032	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BCC1001	Food Science & Product Knowledge	1	4
BCC1003	Introduction to Gastronomy	1	3
BEC1007	Business Economics	1	4
BLM1007	Business Law	1	4
BLO1001	Business Statistics	1	4
BCC2002	Food Safety & Hygiene	2	2
BCC3005	Marketing for Restaurant & Catering	3	4
BCC3006	Food Business Innovation	3	4
BCC3007	Food and Beverage Productivity and Revenue Management	3	4
<u>Culinary Option</u>			
BCC2001	Wine & Beverage	2	4
BCC2003	Food & Beverage Operations	2	4
BCC2006	Culinary Practicum (Western, Asian, Baking & Pastry, Garde Manger)	2	16
BCC2008	Food & Beverage Cost Management	2	3
BCC2009	Service Practicum	2	8
<u>Baking and Pastry Option</u>			
BCC2001	Wine & Beverage	2	4
BCC2003	Food & Beverage Operations	2	4
BCC2007	Baking & Pastry Practicum (Basic & Classic Cakes, Pastry & Desserts, Breads & Dough)	2	16
BCC2008	Food & Beverage Cost Management	2	3
BCC2009	Service Practicum	2	8

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBS2013	Startup Launchpad	2	4
BLR2009	Events Operations & Management	2	4

# Hospitality & Tourism Management



Singapore's hospitality and tourism industries have experienced exceptional growth in recent years with further strong growth for Singapore and the Asia-Pacific region forecasted by the United Nations World Tourism Organisation. Against this backdrop, you can be assured that future career prospects within these thriving industries will be greatly promising.

Our course is comprehensively structured around three core areas namely, Hospitality & Lodging Management, Travel & Tourism and Air Transportation. The course structure allows for flexible transitions and versatile career options across all these sectors.

You will receive a diploma with a well-established reputation amongst our industry partners because of the differentiating factors within the course. These include your active engagement in practical, service training sessions in the Temasek Tourism Academy and at our contemporary training restaurant in the Temasek Culinary Academy, and mastering the finer points of etiquette and grooming. You will also have the opportunity to be involved in our mentorship programmes with our industry partners. Your learning journey culminates in a 24-week internship at a company which you will be guided to select. This final milestone in your learning journey ensures

that you will be in good stead to embark on a promising career in an area within the hospitality or tourism industry.



To sustain Singapore's competitiveness as a tourism destination, we will need a pipeline of talent with the right capabilities and passion to join the tourism sector. TP continues to be a valued partner in developing such talent and we look forward to them equipping future talent with industry-relevant skills and innovative qualities to meet the challenges of our dynamic tourism sector.

Ong Huey Hong  
Director  
Hotels & Sector Manpower Development  
Singapore Tourism Board

## Career Opportunities

Having been groomed for junior executive positions, you can choose to work in virtually any service sector. Many of our graduates find employment with hotels, resorts, serviced residences, airlines, tour operators, leisure attractions, national tourism organisations, as well as businesses dealing with food services, events management, and exhibitions and conventions.

You will also have the option to further your studies in universities in Singapore and abroad with credit exemption or advanced standing. Our diploma is well-recognised by many renowned universities.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 77 credit units
Elective Subjects	: min 6 credit units
Total Credit Units Completed	: min 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Media Studies (English/Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3028	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BCC1002	Fundamentals of Food & Beverage	1	4
BEC1007	Business Economics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BHT1019	Travel Geography	1	2
BLM1007	Business Law	1	4
BLO1001	Business Statistics	1	4
BHT2009	Service Skills Methodology	2	4
BHT2014	Principles of Marketing for Hospitality & Tourism	2	4
BHT2022	Business Etiquette & Service Excellence	2	3
BHT2023	Lodging Operations	2	4
BHT2025	Airlines Business Management	2	4
BHT2026	Travel & Tour Business	2	4
BHT3006	Destination Planning & Development	3	4
BHT3008	Meetings, Incentives, Conventions & Exhibitions	3	4
BHT3012	Contemporary Special Interest Tourism	3	4
BHT3015	Lodging Management	3	4
BHT3016	Hotel Revenue Management	3	4

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BHT2004	Culinary Science	2	4
BHT2015	Ticketing & Reservations	2	3
BHT2024	e-Business in Hospitality & Tourism	2	3
BLR2004	Introduction to Gaming Operations	2	3
BLR2005	Tourism, Culture & Society	2	3

# Law & Management



This course provides you with legal and management knowledge and skills to function as paralegal professionals in the local and global arena.

The course equips you with relevant skills and knowledge to work in the legal arena, including the general management, administration and day-to-day running of a law office or legal department. You will be equipped with cutting-edge information technology skills for the legal environment and be exposed to hands-on training through projects, assignments and through the Student Internship Programme. In using the Problem-based Learning (PBL) approach, the course will develop the capacity for independent learning, and instil the spirit of professional ethics and integrity in you. It also develops your creative problem-solving and analytical skills, your oral and written communication skills, as well as your interpersonal and teamwork skills.

You will study a wide range of substantive and procedural law subjects. You will also study Cross-Disciplinary Subjects and elective subjects. Where suitable, substantive law subjects will be taught using the PBL approach, involving at times web-based, online interaction. You will study various procedural law subjects using the Real Environment Active Learning (REAL) approach which promotes active learning by simulating the actual work environment of the legal profession.

Furthermore, the subject Management of Law Office & Court Technology taught in your Senior year will reinforce the management and legal issues learnt over the previous two years.



A successful legal practice involves teamwork and competence at every level. Paralegals play an often underrated but, in reality, a key role in making sure that quality legal professional endeavour is ably, competently and efficiently supported at the law office.

Lok Vi Ming S. C.  
Senior Partner  
Dentons Rodyk & Davidson LLP

## Career Opportunities

Graduates are well-placed to find employment as office administrators and paralegals in law firms, government bodies and legal departments of large organisations. You will assist lawyers in legal work like drafting of documents, legal research and in day-to-day management and administration.

The diploma is recognised by the National University of Singapore, the Singapore Management University, Singapore University of Social Sciences, various United Kingdom, Australian and New Zealand universities as an entry qualification into their LLB programmes. In addition, many overseas universities also accord our graduates advanced standing towards their non-law degree courses.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3033	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 84 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 4
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Media Studies (English/Chinese Language), Music, Principles of Accounts.

\* *Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 4 for the relevant English Language subject (e.g. Bahasa Inggeris).*

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLM1001	Criminal Law	1	4
BLM1002	Law of Tort	1	4
BLM1006	Legal Skills	1	4
BLM1008	Legal Systems	1	4
BLM1009	Legal Methods	1	4
BRM1005	Marketing Fundamentals	1	4
BLM2003	Family Law	2	4
BLM2004	Law of Contract	2	4
BLM2009	Company Law	2	3
BLM2010	Conveyancing Law & Procedure	2	4
BAF3004	Company & Partnership Accounts	3	3
BLM3006	Corporate Governance & Compliance	3	3
BLM3008	Intellectual Property	3	4
BLM3013	Trusts, Wills & Probate	3	3
BLM3017	Criminal Procedure	3	4
BLM3018	Management of Law Office & Court Technology	3	4
BLM3019	Civil Procedure	3	4

# Leisure & Events Management



The leisure and events businesses will contribute significantly to the success of the remaking of Singapore into an attractive leisure island. With rising demand for trained personnel in the leisure and events industries, you will be on the pulse of some of the most exciting and fastest growing businesses in the world.

This course exposes you to a comprehensive range of leisure and events business operations and management practices, with plenty of opportunities for real life and hands-on learning and interactions with industry leaders. One of the key features of the course is a 20-week internship either locally or overseas, in some of the best known leisure and events companies in the world.

Our curriculum strongly emphasises two major segments of the tourism industry: the leisure business and events business. In each area, you will be exposed to key aspects of operating and managing leisure and events entities such as clubs, spas, attractions and cruise ships. Moreover, you will have the opportunity to organise real meetings and events.

You will also be prepared for the demands of working life by learning the essentials of cross-cultural communication and how to interact professionally in a business environment. In addition, you will have a

choice of elective subjects designed to broaden your knowledge of the tourism industry such as Introduction to Gaming Operations and Culinary Science. The course is also focused on honing your creative thinking and problem-solving skills through active engagement in industry forums and presentations.



The outlook for the tourism industry continues to be challenging and competitive. As such, the dual focus of the Diploma in Leisure & Events Management (LEM) is increasingly important and relevant to ensure that our LEM graduates are ready to contribute towards making Singapore an exciting and vibrant destination, poised for future growth. With the emphasis on MICE and experiential learning, they will be able to take on the impending challenges and excel in the industry, for now and for years to come.

Lim Suat Jien  
General Manager  
One Faber Group

## Career Opportunities

You will be prepared for a wide range of career options and employment in the leisure and events businesses which include country clubs; attractions; cruise businesses; spas; event, meeting, exhibition and convention companies. You can expect to start off as a junior executive at the workplace.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Elective Subjects	: min 6 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Media Studies (English/Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3035	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BCC1002	Fundamentals of Food & Beverage	1	4
BEC1007	Business Economics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BLM1007	Business Law	1	4
BLO1001	Business Statistics	1	4
BHT2009	Service Skills Methodology	2	4
BHT2014	Principles of Marketing for Hospitality & Tourism	2	4
BHT2022	Business Etiquette & Service Excellence	2	3
BLR2002	Attractions Management	2	4
BLR2007	Events Sponsorship & Marketing	2	4
BLR2008	Revenue Management for Leisure & Events Business	2	4
BHT3008	Meetings, Incentives, Conventions & Exhibitions	3	4
BLR3001	Festivals & Events Management	3	4
BLR3004	Club Management	3	4
BLR3011	Cruise Business	3	4
BLR3012	Spa & Wellness Management	3	4
BLR3010	Sports & Arts Business	3	3

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BHT2004	Culinary Science	2	4
BHT2015	Ticketing & Reservations	2	3
BHT2024	e-Business in Hospitality & Tourism	2	3
BLR2004	Introduction to Gaming Operations	2	3
BLR2005	Tourism, Culture & Society	2	3

# Retail Management



This course trains you exclusively in the processes, technologies and trends of retail management. Your training will enable you to help both large as well as small retailers in Singapore to go a level up and bring world-class service standards into the specialised field of retailing.

In your Freshman year, training will focus on providing a strong business foundation and building your awareness of the nature and demands of the retail industry. In your Junior and Senior years, analytical and specialised subjects on the various aspects of retail management are offered. There is a strong emphasis on active learning and practical hands-on training in this course.

Furthermore, you will be exposed to up-to-date computer-based learning materials and methodologies and software application packages currently used in the retail industry. Highly specialised skills will be acquired through subjects such as Merchandise Management, Retail Visual Merchandising, Mall Management, Retail Promotion & Branding, E-Commerce and Luxury Brand Management.

You will engage in practical retail shop floor activities in our simulated retail store, 1st Avenue. This learning enterprise provides you with the necessary hands-on experience

on the shop-floor level in the various practicums to facilitate your transition from education into the workplace.

The retail industry is a key sector of Singapore's vibrant economy. There is an increasing focus on creating clear skills and career advancement routes to raise the professionalism of jobs, improve customer service and retail productivity to make the retail industry an attractive long-term employment option.



The knowledge and hands-on experience that learners acquire from this course not only help to facilitate a smooth transition from the classroom to the working environment but the modules offered are also designed to value-add and enhance our local retail standards.

Sherr Lim  
Chief Park Operations & Revenue Officer  
Wildlife Reserves Singapore

## Career Opportunities

The field of retailing is large and opportunities for employment are available in many business organisations. With the multidisciplinary skills and relevant shop-floor practice acquired from the course, you will be suitable for a wide range of retailing careers. You could also be entrepreneurs managing your own businesses or be employed as retail operations supervisors, retail business development executives, merchandisers, visual merchandisers or marketing executives.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 80 credit units
Elective Subjects	: min 4 credit units
Total Credit Units Completed	: min 124 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, you must also have sat for at least one of the following subjects:

Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Media Studies (English/Chinese Language), Music, Principles of Accounts.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
BCS1011	Communication & Information Literacy	1	2	
BCS1012	Workplace Communication	1	2	
BCS1013	Persuasive Communication	1	2	
BGS1002	Global Studies	1	3	
BGS1003	Managing Diversity at Work*	1	3	
BGS1004	Global Citizenship & Community Development*	1	3	
BGS1005	Expressions of Culture*	1	3	
BIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
BSI3034	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1010	Business Accounting	1	4
BBS1001	Principles of Management	1	4
BBT1010	Business Technology & Analytics	1	4
BEC1007	Business Economics	1	4
BLO1001	Business Statistics	1	4
BRM1002	Principles of Retail Management	1	4
BRM1005	Marketing Fundamentals	1	4
BRM2009	Retail Buying Behaviour	2	4
BRM2113	Principles of Buying	2	4
BRM2114	Service Excellence	2	3
BRM2115	Retail Research & Trend Analysis	2	4
BRM2116	Merchandise Management	2	2
BRM2118	Retail Operations Management	2	5
BRM2119	Retail Visual Merchandising	2	5
BRM2121	Retail Event Management	2	5
BRM3006	Retail Promotion & Branding	3	4
BRM3116	Retail Business Development	3	4
BRM3117	Mall Management	3	4
BRM3118	Contemporary Issues in Retail Management	3	4
BRM3119	Retail E-Commerce	3	4

DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BRM3114	Luxury Brand Management	3	4
BRM3120	F & B in Retail	3	4

# Subject Synopses

## **BAF1007 Basic Business Finance**

This subject provides a general overview of the balance sheet and profit and loss statement of the company. It also provides you with a basic understanding of the sources and allocation of funds within a business enterprise, and an appreciation of some of the financial tools and techniques used by the financial manager in the management of funds and other financial resources.

## **BAF1010 Business Accounting**

This subject provides you with an understanding of the core accounting principles underlying accounting practice; from the preparation of accounting entries to the financial statements of businesses. It also focuses on how various businesses report the results of their activities in the financial statements.

## **BAF1011 Cost & Management Accounting 1**

This subject focuses on the use of accounting information for management planning decisions with emphasis on product costing. Topics covered will include elements of costing, activity-based costing and activity-based management, absorption and variable costing, and cost-volume-profit analysis.

## **BAF1012 Financial Accounting**

This subject builds on the foundation laid in Business Accounting. You will learn how to determine business profits under the accrual accounting system, and to account for business assets namely non-current assets, cash and inventory. The subject will also equip you with the concepts of accounting for partnerships.

## **BAF2002 Business Finance**

This subject provides you with a basic understanding of the sources and allocation of funds within a business enterprise and the tools and techniques used by the financial manager in the management of funds and other financial resources.

## **BAF2005 Cost & Management Accounting 2**

This subject focuses on the use of accounting information for planning, control and decision making. Topics covered include relevant costing, performance evaluation, transfer pricing and budgetary control.

## **BAF2006 Fundamentals of Investment**

This subject provides a framework for understanding and analysing securities, and covers the key institutional features and theories of investment. Topics covered include the investment environment, return and risk in an investment setting, common stocks, fixed-income securities and alternative investments.

## **BAF2007 International Finance**

This subject equips you with the practices of financial institutions, exporters and importers in international trade and introduces you to swaps, options and other instruments available for businesses in hedging foreign exchange and interest rate risks.

## **BAF2008 Management Accounting**

This subject introduces you to the use of accounting information as a management tool in planning and control, short term decision-making and divisional performance evaluation. Basic management accounting tools and techniques such as budgeting, break-even analysis, relevant costing and performance measurement concepts will be covered.

## **BAF2011 Company Accounting**

This subject introduces you to the fundamentals of accounting for companies. It will cover accounting for share and debt capital, and principles in selected Financial Reporting Standards (FRS) such as revenue recognition, property, plant and equipment, provisions, contingencies and events after reporting period. A framework for preparing a set of statutory financial statements will also be discussed.

## **BAF2018 Fundamentals of Taxation**

This subject gives you an understanding of the Singapore Income Tax laws and practices and how these are applied to companies, individuals and other taxable persons. The computation of adjusted trade profit, capital allowances, personal reliefs and income tax liabilities will be discussed.

## **BAF2021 Personal Financial Planning**

This subject introduces you to personal financial planning. It covers the key aspects of financial planning, encompassing cash and credit management, investment planning, insurance planning, retirement planning, tax planning and estate planning.

## **BAF2022 Information Systems & Financial Analytics**

This subject introduces you to the framework of accounting information systems and the operations and controls in a typical business cycle. It also examines developments affecting accounting systems and data analytics. You will be equipped with the skills in using an accounting software and in performing financial analytics.

## **BAF2023 Auditing**

This subject introduces the fundamental concepts of auditing within the audit framework, and the principles of corporate governance and professional ethics. It also provides a practical learning experience in which you will apply audit principles and techniques in simulated individual and group audit assignments. The aim is to prepare you for employment in professional firms where you will be able to handle various aspects of an audit assignment.

## **BAF2024 Banking Products & Services**

The subject introduces the regulatory and operational demands associated with the delivery of banking products and services. In addition, the subject focuses on how such products are marketed in the Singapore context, covering issues such as pricing and promotional strategies in the marketing plan.

## **BAF2025 Corporate Reporting**

This subject equips you with the basic skills in preparing and presenting consolidated financial statements. It will also expose you to further principles in Financial Reporting Standards (FRS) such as that related to investment property and financial instruments.

## **BAF3004 Company & Partnership Accounts**

This subject covers the accounting requirements with regard to partnerships and companies. You will also learn the procedures to account for the legal profession in the preparation of Solicitors' Accounts.

## **BAF3008 Financial Analysis**

This subject covers the application of financial analysis for investment, management and credit decision-making. You will learn how to review annual reports together with other sources of information and analyse company performance in the light of industry and economic conditions.

## **BAF3014 Practice of Taxation**

This subject builds on the principles and concepts acquired from Fundamentals of Taxation. The calculation of benefits in kind for individuals, taxation treatment of partnerships, common investment incentives for companies, double taxation reliefs and distribution of corporate profits are covered.

## **BAF3016 Security Analysis & Portfolio Management**

This subject focuses on the application of financial tools and techniques to make decisions in selecting a portfolio of securities that meet a company's predetermined set of financial goals, especially in the investment of funds. Topics to be covered include security analysis and valuation, modern portfolio theory and formulation of investment policy.

## **BAF3019 Advanced Accounting**

This subject equips you with advanced concepts and principles in Financial Reporting Standards (FRS) such as leases, effects of changes in foreign exchange rates, changes in accounting policies, estimates and errors. You will also learn advanced principles and techniques in the consolidation of group financial statements.

## **BAF3021 Risk Management**

This subject introduces you to the major risk areas that businesses and financial institutions face. It will provide you with a framework for the identification and assessment of credit risk, market risk and operational risk; and outline the positive impact that good corporate governance and culture have on development of robust risk management practices.

## **BBS1001 Principles of Management**

This subject covers the key management functions of planning, organising, leading and controlling. The subject addresses the impact of environmental factors that affect business, the relevance of corporate social responsibility and business ethics, and international management in an organisation. It emphasises the roles, responsibilities and challenges faced by supervisors/manages in an organisation.

## **BBS1002 Organisational Behaviour**

This subject provides you with an introduction to the key determinants of human behaviour at the individual, group and organisational levels. The subject addresses the impact of personality perception, motivation and behavioural modification at the individual level. It emphasises the roles of conflict management, group dynamics, leadership, power and politics at the group level as well as the influence of organisational system variables at the organisational level.

## **BBS2001 Human Resource Management**

This subject covers the impact of human resources on organisational effectiveness as well as the human relations skills and knowledge as future line managers/supervisors in order to be effective in managing their subordinates.

## **BBS2009 Managing Small & Medium Enterprises**

This subject provides you with an overview of the challenges faced by SMEs in Singapore. The subject emphasises on effective marketing, financial, operations and Information & Communication Technology (ICT) management, as well as government assistance programmes that can impact and streamline SMEs for growth and overseas expansion.

## **BBS2010 Talent Acquisition & Management**

This subject provides knowledge on talent acquisition and management of employee relations, concepts and practices. The subject covers human resource planning, hiring process, fair employment guidelines, different work passes for foreign employees, use of a Human Resource Information System (HRIS), relevant employment laws, work-life integration and current HRM trends. It also covers the impact of talent acquisition and management on organisational productivity.

## **BBS2012 Total Rewards Management**

This subject provides information on the design and implementation of performance and compensation management systems. This subject covers areas on performance appraisal, potential appraisal, pay for performance, salary and incentives administration.

## **BBS2013 Startup Launchpad**

This subject focuses on the process to build a successful startup in today's fast changing business landscape that includes disruptive technologies and emergence of sharing economy. It will explore areas such as opportunity recognition, value proposition, customer validation and testing of startup idea.

## **BBS2014 Strategies in e-Business**

This subject focuses on the business management and strategic aspects of setting up and running of e-businesses, covering areas such as the development of e-business, technology, crowdfunding, marketing and models and competitive advantages associated with e-business strategies and implementation.

## **BBS2015 Business in Asia**

This subject provides you with an overview of the opportunities and challenges confronting businesses in the dynamic Asian business environment. It covers the business strategies companies can undertake to address the environmental challenges and the developing consumer and technology trends in Asia.

## **BBS3005 Product Development & Innovation**

This subject provides you with an overview of the key process skills required for product development and innovation in today's business environment. The subject covers methods to transform exciting ideas into successful new products as well as the systems appropriate for innovation and new product development. It also covers the process for entrepreneurs to exploit change with the intention of practising the processes behind developing new products.

## **BBS3010 Enterprise Business Plan**

This subject covers the essentials of a business plan. The subject highlights the impact of the markets, competitors as well as business strategies on businesses. It addresses the roles of operations and management team, the significance of financial forecasts and financing requirements to the organisation.

## **BBS3011 Human Capital Development**

This subject provides you with a well-rounded knowledge in the field of human capital development. The subject covers areas on training needs analysis, design, implementation and evaluation of training programmes, and career development.

## **BBT1006 E-Business Management**

This subject covers the different types of e-commerce models, namely Business-to-Consumer, Business-to-Business and Consumer-to-Consumer. You will learn how companies adopt various business & marketing strategies as well as technologies to do business online, which include key concepts such as Internet marketing, customer relationship management and electronic payment systems. You will use an appropriate software to understand how an e-commerce system helps support B2C sales.

## **BBT1010 Business Technology & Analytics**

This subject covers fundamental computing and data analytics skills for businesses. A strong emphasis is placed in exposing students to office productivity tools which can aid in decision making as well as solving business problems through data manipulation, modelling and visualisation.

## **BBT2002 Open Technology & Business Systems**

This subject covers the characteristics of open information technologies. The subject builds upon your understanding of general business functions, leading to an understanding of the use of open technologies in business systems. You will be exposed to procedures, standards and practices in open technologies, and use an open-source language to build an application.

## **BBT2004 Enterprise Resource Management**

This subject dwells on Enterprise Resource Planning (ERP) system, a powerful tool that seamlessly integrates the various functional modules in an enterprise. You will get to see how data sharing in real time throughout a company's functional areas increases the efficiency of operations and helps managers make better decisions. You will understand the value of ERP systems to supply chain management and business intelligence. A popular cloud-based ERP software will be used for hands-on exercises.

## **BBT2005 Data Mining & Social Media Analytics**

This subject equips you with the knowledge and skills to perform knowledge discovery using a software. You will be able to apply what you have learned by helping companies gain insight into their customers and helping companies effectively use social media to market their businesses.

## **BBT3005 Business Information Systems Security & Audit**

The main focus of this subject is to provide you with an understanding of information security with respect to information systems. It highlights the main principles of information security, introduces the different aspects of information security management and provides a high level view of computer forensics analysis. This subject also draws attention to the current industry practices, government policies and future trends by looking at certification, audits and plans that businesses are working on.

## **BBT3006 Business Strategies in Information Technology**

This subject seeks to reinforce and consolidate the knowledge you have acquired in common business modules by applying them in the context of technology products and IT service companies. You will be taught sales force management, marketing, business development and other related strategies in IT companies. You will also learn the various stages of entrepreneurship, start-up financing, and strategies for start-up and growth. Through case studies and role plays, you will be exposed to contract management, negotiation, pricing, business proposal preparation and other common business activities in the IT industry.

## **BBT3007 Outsourcing Management**

This subject provides you with an understanding of the basic concepts of outsourcing, the trends of outsourcing, the processes involved, and the business advantages that can be obtained. Organisations may seek benefits beyond cost cutting, such as service improvements and radical transformation, although this carries with it associated risks and challenges. You will learn about risk management in a rapidly changing business and IT landscape. This subject will cover both operational issues and strategic risks of IT outsourcing and multi-sourcing.

## **BBT3008 Business Intelligence**

This subject aims to further your knowledge and understanding of the tools and techniques to support executive decision-making and manage business performance. It equips you with skills in using online analytical processing tools, visualisation tools, as well as advanced data mining techniques to bring about business intelligence for companies. It also examines the role that business intelligence plays in customer relationship management and explores trends affecting the future of business intelligence.

## **BBT3009 Enterprise Applications**

This subject equips you with the knowledge to successfully plan, design and use different enterprise applications in any organisations. You will be kept abreast on how enterprise system vendors quickly adapt their systems to take advantage of the latest technologies like open systems, client/server technologies and cloud technologies. You will have a chance to integrate web-based ERP, SCM and CRM systems and see the integration within and beyond the organisation.

## **BBT3010 Project Management**

This subject covers the knowledge, principles and processes that are fundamental for project management. You will be exposed to best practices and different knowledge areas of project management, which involves time, scope, cost and quality management in a project. A project management tool will be used in the course for you to apply your project management skills learned. This will prepare you for your future roles as a project management associate and project team member.

## **BCC1001 Food Science & Product Knowledge**

This subject provides you with the essential knowledge about food products, such as fruits, meats, vegetables, herbs and spices, used in the culinary and catering industry. Topics such as origin, classification, characteristics, storage, quality criteria, usage and nutrition will also be covered. You will also be introduced to wine and other alcoholic and non-alcoholic beverages from a food-harmony perspective. To encourage a thirst for knowledge and continuous improvement, food and beverage trends will also be discussed.

## BCC1002 Fundamentals of Food & Beverage

This subject introduces you to the fundamentals in food and beverage, which is essential knowledge in the catering business. You will learn about the various types of food, including the selection criteria for quality food and current food trends as well as the different types of alcoholic and non-alcoholic beverages. Essential knowledge on nutrition and correct hygiene practices are also covered.

## BCC1003 Introduction to Gastronomy

This subject covers an introduction to the social, historical and cultural forces that have affected culinary professions, traditional foodways and how these traditions have evolved into the professional environment of the food service industry today.

## BCC2001 Wine & Beverage

This subject provides you with a broad understanding of wine and beverages. Topics covered include non-alcoholic beverages, fermented beverages, fortified and aromatised beverages, distilled beverages, compound beverages, mixed beverages and all major wine regions and their wines. You will also be able to appreciate the concepts of responsible service of alcohol, the effects of alcohol on the human body and mind, as well as food and wine harmony.

## BCC2002 Food Safety & Hygiene

This online subject introduces you to food production practices which are governed by regulations. Topics include hazards control; contamination prevention; pathogens and their characteristics; personal, food and environmental hygiene practice; food safety procedures and HACCP procedures; food flow and food quality management; cleanliness and sanitation; as well as pest management, accident prevention and crisis management.

## BCC2003 Food & Beverage Operations

This subject introduces you to all aspects of food and beverage operations. Historical influences and future trends in the industry will be discussed in the context of how they affect the business today. The steps to opening a restaurant will be covered. These include location selection, interior design and menu planning, as well as day-to-day operational concerns such as hygiene and sanitation, marketing, staff scheduling, motivation and management, service styles, customer service issues, profit and loss statements and technological innovations. Current legal, human resource and licensing issues will also be discussed.

## BCC2006 Culinary Practicum

This subject is an intensive 600-hour practical course on the fundamentals of Western cooking with elements of baking and pastry, as well as Asian cuisine. Not only are basics such as knife skills, stocks, sauces and cooking techniques covered in detail, there is also a strong focus on professionalism and developing the right service mind-set to excel in this exciting industry. You will be cooking in modern, fully-equipped kitchens for real paying customers dining in our on-campus restaurants.

## BCC2007 Baking & Pastry Practicum

This subject covers an introduction into the theories and technical skills of the baking and pastry industry. Topics that will be introduced include the fundamentals: commercial food service, baking and pastry methodology; product knowledge (use of ingredients and their characteristics); usage of baking and pastry equipment and tools and process terminology. There will also be a focus on food safety and sanitation, food storage management, culinary math, recipe interpretation and execution.

## BCC2008 Food & Beverage Cost Management

This subject covers areas that include the fundamentals and analysis of: operational profit & loss statement; recipe costing; food cost; the cost-volume-profit relationship (sales mix); purchasing and receiving; storing and issuing; food production management; monitoring of food and beverage operations; manpower costs (planning, allocation, rostering and training); and staff performance management.

## BCC2009 Service Practicum

This subject gives you first-hand experience in operating food and beverage outlets that provide guests with information, products and services. In the process, you will learn how to provide excellent service in guest relations and food and beverage environments. This will be carried out with a focus on maximising guest satisfaction.

## BCC3005 Marketing for Restaurant & Catering

This subject exposes you to the marketing theories and techniques employed in the restaurant and catering business. It prepares you for the working world by not only equipping you with examples of tried and tested marketing efforts, but also challenges you to exercise creativity and innovation by developing your own marketing plan for a restaurant or catering business.

## BCC3006 Food Business Innovation

This subject covers the test-bedding of food business concepts developed in a previous subject Innovation and Entrepreneurship. It examines how a 'live' food business concept is planned, executed and managed. There will also be a focus on problem solving, negotiation techniques, and business administration.

## BCC3007 Food & Beverage Productivity & Revenue Management

This subject equips you with the knowledge and skills to effectively manage restaurant revenue by using techniques such as yield management, cost control, menu planning and engineering, as well as marketing and sales.

## BCM1006 Media & Society

The subject introduces you to the societal role played by the mass media as a cultural, social, informational, economic, political and educational force. It examines the interrelationships of all media and their potential impact on the population.

## BCM1014 Media Scriptwriting

This subject provides a foundation in the principles and concepts involved in writing script for the media. It explores the various stages of script writing which includes conducting research, conceptualising of ideas or stories and producing treatments which lend themselves for commercialisation. Key aspects on writing effective scripts include the various script styles and format will also be covered.

## BCM1015 Fundamentals of Journalism

The subject is an introduction to the fundamentals of covering and writing news. It will encompass media literacy skills, quick identification of news events, efficient gathering of information and fast reporting on the various mass media platforms available.

## BCM1017 Essentials of Graphic Design

This subject provides you with an introduction to the ideation, theories and practices of graphics design. It focuses on the fundamentals of design and process from the conceptualisation, production to post-production. Other areas covered in the subject include basic photography and optimisation of graphics for traditional and digital platforms.

## BCM2019 Digital Journalism

The subject is an introduction to the basics of digital news production. Through a multimedia approach, you will learn how to create quality journalistic content specifically for the digital platform, from planning, reporting, editing to determine the best use of digital and mobile technologies and tools.

## BCM2020 Video Production

This subject focuses on production techniques and technology appropriate to video production. Key aspects of producing a video include infusing of content, technical and aesthetics concerns, production processes as well as strategic business related framework. In a team, the process of transforming story ideas into effective or aesthetic video format will be achieved.

## BCM2021 Introduction to Audio Production

This subject covers concepts, tools and techniques needed to carry out essential audio operations. This includes the use of field and studio equipment as well as editing software for the production of audio clips. The use of audio for video will also be taught in addition to the commercialisation of audio materials.

## BCM2022 Multi-Camera Production

This subject introduces you to the basics of multi-camera techniques, the principles and concepts of producing “live” broadcast, including interviews, and/or other related videos. The production of programmes follows a set of processes which includes basic multi-camera operations, lighting, audio, producing and directing. Demonstration of the multi-camera production process from pre-production to post-production will be covered.

## BCM2023 Radio Studio Production

This subject covers radio presentation techniques and the use of radio as a means of fulfilling commercial objectives. You will be guided on basic radio presentation skills and the production of radio content through demonstrations and practices.

## BCM2024 Media Research & Analysis

The subject provides you with an overview of research in the media industry, and its purposes and uses. You will explore a wide range of media research methods and their usefulness in helping businesses in decision-making. This includes the appreciation of appropriate tools that will help formulate sound recommendations that meet the organisation’s objectives.

## BCM2025 Photojournalism

This hands-on subject provides an introduction to the theories and practicalities of photography and photojournalism. It focuses on the key aspects of lighting, exposure and composition techniques to produce impactful images. It will prepare you to make instant optical decisions during events or significant moments. Attention will also be placed on the use of narrative to pitch and tell compelling stories.

## BCM3011 Major Project (Communications & Media Management)

This subject takes the form of a final project. It allows you to propose and develop one that showcases the knowledge, skills and abilities that you have gained through the CMM course. Working in a team, you will be given the freedom to develop your project within a supervisory relationship with you lecturers. In addition, you will also document and reflect on your project outcomes. You will also be taught basic project management skills such as proposal planning and crafting, budget planning and management, and drawing up timelines.

## BCM3012 Digital Content Management

The subject will cover the management of digital content, which involves planning, production and delivery. It will also cover appropriate digital tools for different media channels and propose effective digital communication strategies for a business environment.

## BCM3013 Digital Media Production

This subject builds on the fundamentals of basic media production such as photography, graphic design, audio and video production. It covers the integration of separate media elements to create moving images and effects to enhance visual storytelling. Combined with their communication skills, students will be able to produce effective content for their target audiences on a variety of devices.

## BCS1011 Communication & Information Literacy

In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the Message, Audience, Purpose and Strategy (MAPS) when writing and delivering oral presentations.

## BCS1012 Workplace Communication

In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) will be covered.

## BCS1013 Persuasive Communication

In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) will also be applied when engaging in verbal and written communication.

## **BEC1001 Microeconomics**

This subject provides you with an understanding of the broad framework of microeconomic analysis. Conceptual tools of economic analysis such as scarcity, demand and supply will be introduced, followed by a study of consumer behaviour, product market and resource market.

## **BEC1002 Macroeconomics**

This subject provides you with an understanding of the broad framework of macroeconomic analysis. The equilibrium level of national income, business cycle, unemployment, inflation, and monetary and fiscal policies will be discussed, followed by a study of international trade.

## **BEC1007 Business Economics**

The subject covers the fundamental principles of economics for understanding how individuals and firms make decisions. It will focus on the various aspects of the product market: demand and supply, elasticity, market competition, product differentiation. The subject includes an overview of macroeconomic indicators, the government's macroeconomic objectives and policy tools.

## **BGS1002 Global Studies**

This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.

## **BGS1003 Managing Diversity at Work**

You will examine your own identity, study different forms of diversity and apply strategies to inspire positive collaboration in a diverse workplace. Through a residential stay, you will have the opportunity to experience living and working with peers from different backgrounds.

## **BGS1004 Global Citizenship & Community Development**

This subject highlights the inter-connectedness of the world today, bringing about what it means to be a Global Citizen. You will gain an awareness of the impacts of globalisation and the concepts of social responsibility and sustainable community development. This subject also challenges you to be actively engaged in a social or environmental project.

## **BGS1005 Expressions of Culture**

Whether telling stories, building monuments or celebrating rites of passage, expressions of culture are at the core of cultural diversity. In this subject, everyday objects, artistic creations and popular culture are explored as ways of understanding the values and beliefs of a society. You will explain the role of cultural heritage stakeholders and learn to conduct cultural story-telling. By taking this subject, you will benefit by acquiring a greater understanding and appreciation of the complexities surrounding our cultural assets.

## **BHT1010 Introduction to Hospitality & Tourism**

This subject provides an overview of the multifaceted nature of the hospitality and tourism industry. You will gain an insight into how the key sectors are organised and structured and how they relate to each other as an industry. The concept of tourism demands and tourism consumer behaviour will be introduced. Lastly, you will explore trends, issues and challenges facing the industry.

## **BHT1019 Travel Geography**

This subject approaches the study of key tourist destinations worldwide through an understanding of basic geographical characteristics and how these determine tourism resources in a country. It also highlights how these resources distinguish destinations and influence travel, and how travel, in turn, shapes the development of the tourism resources. Through e-learning, you will learn the framework on which you build your knowledge of world travel, explore techniques to enhance learning and build your confidence to sell destinations.

## **BHT2004 Culinary Science**

This subject provides you with basic culinary and catering knowledge and skills, and the opportunity to apply these through operating a commercial kitchen. You will learn the key aspects of kitchen operations which include professionalism, safety and sanitation, kitchen equipment operation, technical Western culinary skills and teamwork.

## **BHT2005 Event Management**

The subject introduces the scope of events and their application in the context of the tourism industry. From this macro perspective, you will build a foundation in event conceptualisation, development and production, covering topics such as marketing of events, human resource management and budgeting, and staging.

## **BHT2009 Service Skills Methodology**

This subject gives you first-hand experience in operating a range of F&B outlets in their respective service styles. In the process, you will learn the technical skills required to provide efficient and competent service, as well as, how to provide elegant and gracious service to guests. This will be carried out with a focus on the mastery of basic technical skills such as wine service, order-taking and table setting. Maximising guest satisfaction through effective communication, attention to detail, creative and critical thinking skills will also be taught. The value of leadership and teamwork in running a successful food and beverage enterprise will be emphasised.

## **BHT2010 Special Interest Tourism**

This subject provides an overview of the development of special interest tourism within the context of general tourism, as well as the factors responsible for the growth of special interest tourism. You will also explore the specific interest areas in terms of product development and marketing.

## **BHT2012 Travel & Leisure Business**

The subject provides you with an overview of the travel and leisure business in the 21st century. Specifically, topics encompassing the components and structure, key dynamics and the environment, and issues facing the world's largest business will be covered.

## **BHT2014 Principles of Marketing for Hospitality & Tourism**

This subject covers basic theories, concepts, and strategies applied in the marketing of hospitality and tourism products. Special attention will be given to marketing management issues surrounding the intangible nature of these products with key emphasis being placed on the importance of the service element.

## **BHT2015 Ticketing & Reservations**

The subject looks at the reservation and ticketing of air products. You will be provided with an insight into how an itinerary is priced and tickets are issued. Hands-on learning is a feature of the subject as you will experience using a global distribution system programme such as the Amadeus Reservations System. Upon successful completion of the programme, you will be issued with a Certificate in Reservations and Ticketing that is recognised by the industry. The subject will also cover essential knowledge of the airline and travel industry.

## **BHT2022 Business Etiquette & Service Excellence**

This subject focuses on two areas, the soft skills aspects of business and customer service. The former illustrates the importance of appropriate dressing, dining etiquette, cross-cultural psychology and skills necessary to make the transition from student academic life to the work place. The latter (service excellence) grooms you to be practical philosophers of customer service. You will be challenged to look beyond the service norms to achieve a much higher level of desired service.

## **BHT2023 Lodging Operations**

This subject focuses on the fundamentals of lodging operations. It concentrates on the systems and procedures required to operate a lodging establishment. You will gain a clear understanding of the importance of lodging systems and its effect on operations. The focus will be on the integration of the front desk with other operating departments such as housekeeping, reservations, concierge, food & beverage outlets, accounting, engineering and sales/marketing. You will be able to apply knowledge gained to explore new and innovative ways of improving existing lodging operations and management.

## **BHT2024 e-Business in Hospitality & Tourism**

This subject highlights how advancements in technology have shaped hospitality and tourism businesses. It also spots the trends in e-businesses and focuses on basic concepts such as e-customer relationship management and e-business planning and strategies.

## **BHT2025 Airlines Business Management**

This subject will familiarise you with fundamental concepts on scheduled international air passenger transportation, and how the different components of this industry work together efficiently and effectively. Topics covered include an overview of the air transportation industry, airline marketing, airline operations and aircraft and route network.

## **BHT2026 Travel & Tour Business**

The subject provides you with theoretical knowledge and foundational skills to manage travel and tour businesses in the area of itinerary planning and design, and tour coordination and operations. You will also be exposed to business travel and the critical role played by Travel Management Companies (TMC). This subject wraps up with a look at the emerging trends, issues and challenges and the technological impacts faced by the industry.

## **BHT3006 Destination Planning & Development**

This subject examines the processes involved in planning and developing a tourist destination. It provides you with the skills and knowledge necessary to plan, develop, and manage natural, cultural and financial resources in an environmentally responsible manner. It also focuses on the benefits and impacts associated with tourism development, as well as the strategies to enhance the benefits and counter the adverse effects of tourism development.

## **BHT3008 Meetings, Incentives, Conventions & Exhibitions**

You will be introduced to a variety of theories, concepts, and strategies applied in the context of meetings, incentives, conventions and exhibitions (MICE). The subject equips you with an awareness of the diversity of meetings and their roles and contributions in enhancing tourism and destination development. It provides a broad understanding of the planning process for MICE activities and the different relationships between industry parties involved.

## **BHT3012 Contemporary Special Interest Tourism**

The subject provides an overview of the development of special interest tourism as a response to a more mature travelling public seeking a wide spectrum of experiences such as nature-based, cultural and heritage tourism. The factors responsible for the growth of special interest tourism, specific interest areas, strategies, policies, product development and marketing of this new and growing tourism sector will also be examined.

## **BHT3015 Lodging Management**

This subject focuses on the fundamentals of lodging operations and management. It concentrates on the roles of the customer, operator and service provider. You will have a clear understanding of the importance of lodging systems and its effect on operations. The subject also provides an overview of the delivery management system. Emphasis will be placed on the property management and preventive maintenance systems as well as the distribution channel. There will be opportunities for you to apply knowledge gained within the area by exploring new and innovative ways to improve existing lodging operations and management.

## **BHT3016 Hotel Revenue Management**

This subject provides an overview of revenue management as practised in lodgings as well as a review of the fundamental concepts of why, how and when to apply revenue management. Throughout the subject, you will have to integrate and apply your prior knowledge of other subjects to revenue management. You will then appreciate the role and importance of revenue management in the industry and its link to profitability. Case studies based on real-life scenarios will feature in the subject and enable you to practise the principles learnt in revenue management.

## **BIN1001 Innovation & Entrepreneurship**

The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. You will first be introduced to the Design Thinking framework and learn how to develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. In addition, commercial awareness will be imbued in you through the LEAN Startup framework, idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding/crowdsourcing avenues.

## **BLM1001 Criminal Law**

This subject covers the law relating to criminal offences and defences. The focus is on identifying and understanding the elements of major offences and defences in the Penal Code with reference to decided cases. Criminal offences in other key legislation such as the Misuse of Drugs Act and the Women's Charter will also be dealt with.

## **BLM1002 Law of Tort**

This subject covers the main areas of civil actions available to parties seeking civil redress. These include the laws relating to negligence, nuisance, defamation, assault and battery.

## **BLM1006 Legal Skills**

The legal skills covered in this subject include statutory reading, legal case report reading, case summary writing, conducting client interviews, taking attendance notes, legal letter writing and drafting of legal opinions.

## **BLM1007 Business Law**

This subject provides you with a working knowledge of the general principles of law that are important to business. Topics covered include contract, negligence, sale of goods, intellectual property and e-commerce.

## **BLM1008 Legal Systems**

This subject introduces you to the concept of law and the legal system in Singapore. You will also learn about the respective roles and structures of the Executive, the Legislature and the Judiciary in Singapore.

## **BLM1009 Legal Methods**

This subject introduces you to important legal methodologies such as legal thinking, legal research, case reading and statutory interpretation.

## **BLM2003 Family Law**

This subject introduces the law relating to the family in Singapore. Topics covered include marriage, divorce, the maintenance of wife and children, custody of children, family violence, division of matrimonial assets and the maintenance of parents. Close attention will be paid to the Women's Charter and relevant cases.

## **BLM2004 Law of Contract**

This subject provides an overview of the legal principles governing the formation of contracts, the rights and obligations created by certain types of clauses and the consequent remedies available to anyone who suffers a breach of contract. It also covers the major vitiating factors and the ways in which contracts can be terminated.

## **BLM2005 Legal Aspects of Business**

This subject provides a working knowledge of the general principles of law that are important to business. Topics covered will include law of contract, sale of goods and intellectual property.

## **BLM2007 Legal Aspects of IT**

The subject covers at an introductory level the law which is relevant to the information technology industry, and which an IT professional will be likely to apply in the course of his work or business.

## **BLM2009 Company Law**

This subject provides a basic understanding of the law that governs and regulates companies. Topics include types of corporate entities, Memorandum and Articles of Association, directors' duties, rights of members, corporate finance, winding up and judicial management of companies.

## **BLM2010 Conveyancing Law & Procedure**

This subject introduces the basic concepts relating to real property in Singapore and the procedural aspects connected with property transactions. You will learn topics connected with the ownership of land, registration systems, the law in relation to mortgages, landlords and tenants and strata titles. The procedures involved in the preparation of instruments for lodgement for such transactions will also be covered.

## **BLM3006 Corporate Governance & Compliance**

This subject equips you with an understanding of basic principles for good corporate governance in private and listed companies, as well as the internal compliance adopted by companies to comply with applicable laws and policies. You will learn the law which governs and regulates companies in Singapore with particular emphasis on the practical and procedural aspects.

## **BLM3008 Intellectual Property**

This subject covers the substantive law relating to main types of Intellectual Property Rights (IPRs) and includes Law of Confidence, Law of Passing Off, Law of Copyright, Law of Trade Marks, Law of Patents and Law of Designs. You will receive a brief introduction to the registration processes for trademarks and patents and to civil and criminal enforcements. You will also be given an overview of the Law of Information Technology, with reference to the Computer Misuse Act.

## **BLM3013 Trusts, Wills & Probate**

This subject is a study of the law relating to trusts, wills, intestacy, probate and administration. Particular attention will be paid to drafting of wills and the procedures for obtaining grant of Letters of Administration and Probate.

## **BLM3017 Criminal Procedure**

This subject deals with the procedure in respect of criminal matters, from arrest to criminal litigation and appeal. It covers the entire process of administering criminal justice and criminal litigation as provided for in the Criminal Procedure Code and portions of the Evidence Act, and trains you to assist a criminal lawyer effectively.

## **BLM3018 Management of Law Office & Court Technology**

This subject will cover most aspects of running and managing a law office including the management of human resources, the office environment, work flow management, office automation, record and document management, logistical support, electronic filing and litigation support systems.

## **BLM3019 Civil Procedure**

This subject introduces the litigation process from commencement of a writ action to enforcement of a judgement. It also covers the substantive legal principles underlying civil procedures and includes hands-on training in the drafting of court documents.

## **BLO1001 Business Statistics**

The subject provides an overview of descriptive and inferential statistics. It includes data description, basic concepts of probability, correlation and regression, probability distributions, estimation and hypothesis testing. The subject also covers the use of computer software application to perform statistical computation for data analysis and interpretation.

## **BLO1002 Business Calculus**

The subject covers topics such as algebraic functions, limits, exponential functions, logarithm functions, and the various rules and techniques of differentiation and integration to solve problems in the business environment.

## **BLO2004 Operations Management**

The subject covers the fundamental concepts and techniques commonly associated with the management of operations for manufacturing as well as service organisations. Quality management strategies that help organisations to improve on its operational performance and provide better value to their customers will also be introduced into this subject.

## **BLO2005 Purchasing Principles & Practice**

The subject provides an overview of the fundamental principles in purchasing and its impact on the organisation's supply chain. It begins with the general objectives for industrial purchasing, provides an overview of the general purchasing constraints and covers the various strategies that are generally applied to capitalise on advantageous situations or to alleviate potential issues. The impact of IT and international sourcing will also be covered in this subject.

## **BLO2010 Distribution Centre Management**

This subject provides an overview of the role of a Distribution Centre (DC) in the supply chain, the various activities performed within a DC and the significance of these activities on customer service and total logistics costs. It focuses on the major resources to be applied in a DC and explains how they interact with one another in contributing to the DC's effectiveness and efficiency. It will also cover the significance of providing DC services to the Third-Party Logistics industry.

## **BLO2011 Materials Management**

The subject provides an overview of materials management with the emphasis on planning, scheduling and controlling the flow of materials to achieve a shorter lead-time and a faster turnaround for finished goods to reach customers. The subject will also cover inventory cost concepts, analytical methodologies to achieve optimum inventory level and techniques in managing inventory. The subject will provide application of the concepts learnt through the use of Enterprise Resource Planning (ERP) software.

## **BLO2013 Supply Chain Management & Technology**

The subject covers fundamental concepts and techniques of supply chain management. It focuses on the major functional components of the supply chain and explains how they interact with one another in contributing to the success of business organisations. The application of technology will be emphasised as a key enabler of business operations in the supply chain.

## **BLO2014 Quantitative Analysis for Business**

The subject provides the basic tools and concepts of the various business analytics techniques used for decision making in a business context. It covers topics such as decision analysis, linear and integer programming, forecasting techniques, and project management. It focuses on a variety of logistics and operations problems that can be solved successfully through quantitative analysis.

## **BLO2015 Transportation & Freight Management**

The subject provides an overview of the various aspects of transport operations and freight management and its importance in the global trade and supply chain management. The subject covers the important freight concepts including the Incoterms, Harmonised System (HS) Codes, customs duties and GST. Various shipping documents requirement, preparation of shipment costing and declaration of trade permits will also be emphasised. The subject will also provide insights into the practices of effective management of transport for freight movement through the use of vast network of transportation modes.

## **BLO3015 Global Trade & Singapore Logistics**

The subject provides fundamental concepts of international trade and logistics landscape in Singapore. It focuses on the logistics sector in Singapore as an enabler for trade including the application of key initiatives driven by the various government agencies and trade financing payment options for risks minimisation in global trade. The impact of security issues of supply chain operations will also be covered.

## **BLO3016 International Freight Practices**

The subject provides an overview in freight management, which is a vital component of international trade and supply chain management. It focuses on the significance of freight transport in the global setting. Topics related to freight tariff systems, costing, operational flows, customs documentation and clearance procedures will be covered to give a good understanding of the practices in the freight industry. The subject will also teach the best practices and performance measurements used in the freight industry.

## **BLO3023 Business Process Management & Simulation**

The subject teaches various techniques and tools such as process chart, flow diagram as well as time study to map and evaluate business processes. The subject introduces simulation software to create computer models to simulate various logistics and supply chain operation processes such as Order Fulfilment, Production, Storage and Inventory Management. Through the conduct of these simulation studies, an optimal deployment of resources to improve the overall operational efficiency and effectiveness will be determined.

## **BLR2002 Attractions Management**

Forming the backbone of this subject is the study of the various types of visitor attractions, both manmade and natural, their unique characteristics, corresponding management and operational concerns. The linkages between attractions and their importance to the tourism industry will also be discussed. Case studies of the various types of attractions around the world will be used as platforms for discussing the various management issues facing the attractions industry.

## **BLR2004 Introduction to Gaming Operations**

The subject is designed to provide an overview of gaming operations. Key topics include the development of gaming, gaming trends, technology, the gaming organisational structure of hotels and resorts, government regulations, consumer behaviour, marketing strategies, economic impact, social and cultural concerns.

## **BLR2005 Tourism, Culture & Society**

This subject is designed to provide an overview of how tourism will influence and impact upon culture and society. The key areas include heritage and culture as tourism products, the development of identity and place, cultural tourism, and the impact of societal trends on the tourism industry.

## **BLR2007 Events Sponsorship & Marketing**

This subject provides you with opportunities to learn a variety of sponsorship and marketing strategies applied in the event sector through the use of case studies. You will be exposed to the theories and concepts applied in sponsorship and marketing, which form a vital component of contemporary event management. This module also aims to develop your presentation, planning and business skills that are critical to securing successful partnerships and collaborations.

## **BLR2008 Revenue Management for Leisure & Events Business**

This subject provides you with an understanding and overview of revenue management as practised in the leisure industry. It covers areas such as convention centres, golf clubs, cruises, spas and theme parks, with basic concepts such as demand forecasting and yield management, as well as strategies and tactics used by the leisure industry with regard to revenue management.

## **BLR2009 Events Operations & Management**

This subject covers the principles and practices of planning, managing and staging of events. You will learn the various aspects and stages in event planning, budgeting and site management. The study of the operational process, elements and resources available to the event manager in developing quality events will also be covered.

## **BLR3001 Festivals & Events Management**

This subject covers the scope and the operational aspects of events in the context of the leisure industry. To achieve this, you will be introduced to knowledge in the planning, development, programming and production of medium and large scale events. Key topics such as event types, importance of events for the leisure and tourism sectors, marketing, human resource management, budgeting and staging will be examined.

## **BLR3004 Club Management**

This subject covers the study of different types of clubs including city, country, and other recreational and social clubs. It focuses on the administration and management of club operations in the areas of lodging, food and beverage, service excellence and quality issues, financial management, marketing, events planning, recreation, sport and fitness facilities management. This subject emphasises the development of technical and conceptual skills for successful club management.

## **BLR3010 Sports & Arts Business**

This subject introduces you to the scope of sports and arts business concepts and their application in the context of the leisure industry. You will be equipped with perspectives on the role of sports and arts as key sectors of the leisure industry. You will be introduced to sports broadcasting and sport media relations, and perspectives will be shared on the bidding for major events, and also from a grassroots perspective of organising recreational sports programs. You will also learn about the strategic stakeholders in the arts, and applying business concepts to the field of arts.

## **BLR3011 Cruise Business**

This subject covers a variety of theories, concepts and strategies applied in the context of cruise business management. The key areas include the historical development and growth of the modern cruise industry, maritime issues, cruise facilities, cruise operations and management with an emphasis on cruise destinations, itinerary planning, and the sales and marketing aspects of the cruise business.

## **BLR3012 Spa & Wellness Management**

This subject provides a comprehensive overview of the operations and management of spa and wellness businesses. It will examine the different types of spa and wellness organisations and proceed to focus on key areas in treatments and protocols, safety and hygiene practices, branding and facilities design, planning and management, marketing, human resource management and retailing. The dynamics of the spa and wellness industry as well as major issues and trends will be discussed.

## **BMK2016 Marketing Analytics**

This subject provides you with an overview of the role of marketing analytics in the decision-making process that marketing managers undertake. In a rapidly changing world where timely and accurate information is vital to making sound business decisions, marketing analytics is an absolute necessity.

## **BMK2017 Consumer Insights**

This subject provides you with an understanding of customer buying behaviour. It focuses on the internal and external forces affecting customers' buying decisions in a variety of contexts. Students will learn to gather insights from understanding consumer decision making journey.

## **BMK2018 Integrated Marketing Communications**

This subject provides you with an understanding of the strategies and tools for effective customer communications. The subject focuses on equipping students to apply their knowledge and skills to develop sound integrated marketing communication plans.

## **BMK2019 Creative Marketing Project**

This subject aims to provide you with an understanding of the creative process and practical issues in marketing innovation. It offers the necessary tools for you to create effective communication messages, generate ideas for innovative products & services to achieve marketing success.

## **BMK2020 Experiential Marketing**

The subject introduces you to the concept of managing an experiential marketing event. You will learn to conceptualise, develop and organise an experiential event that engages customers to create an emotional attachment to a product/service and brand. The subject would also cover marketing of events, human resource management and budgeting.

## **BMK2021 Marketing Account Management**

This subject provides you with an understanding of the importance of service excellence in account management to capture the hearts and minds of stakeholders. Building on this understanding, students will learn strategies and tools to manage relationship with key partners and customers to achieve business objectives.

## **BMK2022 Product & Services Marketing**

The focus of the subject will be on strategies and tools to market and deliver products and services together in a seamless and customer-centric manner to help companies differentiate its offering from competitors.

## **BMK2023 Digital & Social Media Marketing**

Digital & Social Media Marketing is the buzz word in today's digitalised world. This subject offers you understanding into the theories and practices of digital and social media marketing strategy and tools in the context of a company overall marketing strategy.

## **BMK2024 Marketing X Project**

This subject focuses on helping you to look at different types of business problems with marketing methodology and perspective. You will learn cross-cultural and sustainable marketing and the role of technology in enabling businesses. You will also explore opportunity to work with other disciplines on local or overseas projects to solve multi-disciplinary real world problems.

## **BMK3005 International Business**

This subject is a broad study of the field of international business. The major topics focus on theories and patterns of international trade and international investment, the international business environment, the market entry strategies of international firms, international human resource management and issues, the global monetary system and the strategic management of international businesses.

## **BMK3015 Major Project (Marketing)**

This subject takes the form of a final project which provides you with the opportunity to apply knowledge and skills learned in the Marketing course. Working in a team, you will identify real-life problems, conduct independent research and analysis, and provide a proposal and formal presentation. You will acquire project management skills including proposal planning and crafting, budget planning and timeline management.

## **BMK3016 Branding**

One of the most valuable intangible assets that a company has is the brand that it has invested in and developed over time. Like people, brands have their own individual personality. This differentiation drives the ability for the brand to grow and expand. This subject focuses on understanding the importance of brands, what brands mean to consumers and the various strategies and tools to develop, manage and grow brands.

## **BMK3017 Public Relations in Practice**

This subject seeks to equip students with the essentials for the practice of public relations. You will acquire the theories, tools and techniques of public relations and apply them to real-life situations professionally.

## **BMK3018 Contemporary Topics in Digital Marketing**

This subject will give you the opportunity to pursue relevant industry certification in digital marketing. You will learn industry best practices in various areas such as mobile marketing, content marketing, user interface and experience.

## **BMP3003 Major Project (Business Information Technology)**

This subject provides you with an opportunity to apply your knowledge and skills acquired during classes and working experience in the Student Internship Programme. You will work in teams throughout the semester to produce a business proposal and system prototype. You will also be required to make a formal presentation of the project undertaken.

## **BMP3007 Major Project (Logistics & Operations Management)**

This subject covers requirements of the various stages and processes that are required in completing an industrial project. The first stage will be to understand the project requirements so as to decide on the project objectives. This stage will also include scoping the project and planning the methodology that will be utilised to complete the project. The second stage involves the research, data collection analysis and evaluation. For the final stage, the entire findings of the project are communicated to the relevant parties and industrial clients.

## **BRM1005 Marketing Fundamentals**

This subject provides an understanding of the basic concepts and practices of modern marketing. It focuses on the marketing role and the tools utilised by marketers in developing the appropriate marketing mix for target market segments.

## **BRM2009 Retail Buying Behaviour**

This subject provides you with an understanding of consumers' buying behaviour in a retail context. It focuses on the internal and external forces affecting consumers' decisions in buying behaviour in a variety of retail contexts.

## **BRM2113 Principles of Buying**

This subject introduces you to the fundamentals in retail buying processes in order to achieve sales and margin targets. You will learn to forecast sales and customer trends, plan assortment buying and allocation, manage vendor relationships and design effective promotional programmes to market the merchandise. You will have the opportunity to utilise merchandise mathematics in areas such as retail budgeting, Open-to-Buy decisions, sales and stock turn controls that are reflective of the real retail environment.

## **BRM2114 Service Excellence**

This subject provides you with the practical experience to develop a professional and quality service mind-set for front-liner roles in a retail environment. Emphasis is placed on the mastery of basic retail skills such as the management of a point-of-sale system, inventory control, order management and administration of reservation and exchange policies. You will be equipped with the knowledge, skills and selling techniques to provide excellent service and to create a customer-focused retail environment that keeps pace with current trends and developments in the retail industry.

## **BRM2115 Retail Research & Trend Analysis**

This subject aims to provide you with the knowledge to research, identify and assess emerging retail trends and information sources which are useful for retail decisions. The subject covers basic research techniques and related software for trend and market analysis. You will understand and appreciate the importance of trend forecasting and analysis in diverse areas such as new channels used by consumers, identify product and market opportunities and the different branding strategies within a retail environment.

## **BRM2116 Merchandise Management**

This subject is a practical module on the fundamentals in retail merchandise buying. It provides you with the hands-on opportunity to apply the basic concepts and skills you have acquired in retail buying processes. You will learn to conceptualise merchandise themes, formulate a viable merchandise mix, plan buying budgets, source and conduct negotiations with suppliers and manage the merchandise planning and assortments to create an impressive retail image and achieve target sales.

## **BRM2118 Retail Operations Management**

This subject provides you with an overview of the management frameworks of running a retail store. It encompasses space management, operations and human resource management. Particular emphasis is given to service coaching and role modeling to create a customer-centric working environment. The subject taps on the retail laboratory to provide hands-on opportunities to apply the relevant knowledge in managing a store.

## **BRM2119 Retail Visual Merchandising**

This subject equips you with the fundamentals and skills in visual merchandising to develop effective visual presentations in a retail environment. It focuses on the basic principles and practices in visual merchandising with particular emphasis placed on design principles, visual display components, visual merchandising techniques and emerging trends in visual merchandising.

## **BRM2121 Retail Event Management**

The subject covers the various practical aspects in planning and managing retail events. The aspects include conceptualising, developing and executing of retail events. A real-life project will be used to enhance the learning of the practical retail event management skills.

## **BRM3006 Retail Promotion & Branding**

This subject covers the fundamental principles of retail advertising and promotion together with retail branding. It explains the role of an integrated marketing communication strategy in the creation of a brand image that retailers adopt to differentiate themselves from the competitors. Topics covered range from situational analysis, marketing communication mix to building brand equity.

## **BRM3114 Luxury Brand Management**

There is an increasing trend in the local retail sector where more international and luxury brands are keen to enter the market. This subject offers you insights into the world of luxury brand management. The subject includes an understanding of the major luxury sectors ranging from leather goods, fashion and jewellery to accessories. It will also examine the challenges in developing a luxury brand, expectations of a luxury client, training talent in the luxury business and the key management issues involved in growing these premium brands globally.

## **BRM3116 Retail Business Development**

This subject provides you with the knowledge and skills to start a retail business and to develop a differentiating retail strategy. It integrates the knowledge and content covered in past modules taken. You have the opportunity to conceptualise and implement a viable retail business idea. Key topics include environment analysis, target market behaviour, competitive scanning, location analysis, customer service and store image analysis. These will allow you to formulate a business plan covering areas in retail operations, merchandise mix, visual merchandising and branding. Financial forecasts, budgeting and ratio analysis will be some key financial topics covered in the business plan.

## **BRM3117 Mall Management**

This subject covers an overview of the fundamental aspects and practices in mall management. You will learn about mall positioning strategies, tenant management, leasing negotiations and mall marketing techniques. Emphasis will be placed on mall positioning, retail techniques to optimise tenant mix, mall resource allocations, returns on investments, REITs, issues and concerns experienced by mall management and the increasing influence of malls in the local retail scene.

## **BRM3118 Contemporary Issues in Retail Management**

This subject provides you with an overview of the development of retail trends in the local and international contexts as a response to the evolving retail environment. The issues which impact the retail industry such as new retail formats, emerging retail trends and the development of shopping malls in urban and suburban sites will be examined. This subject will also focus on major factors affecting retail businesses in the global marketplace which include cross-cultural differences, ethics and social responsibility, future trends in retail operations and retail formats and consumer spending patterns. Emphasis will be placed on exploring global expansion strategies and new market development.

## **BRM3119 Managing E-Commerce**

This subject introduces the use of new media to achieve retailing objectives, the working fundamentals in Customer Relationship Management and E-commerce. Students will understand how technology is transforming the retail industry and explore the challenges and issues in E-commerce for retailers. Emerging trends involving M-commerce, cross-channel fulfillment, in-store virtual technology, integration of new media applications and omni-channel customer engagement will be examined.

## **BRM3120 F&B in Retail**

To remain competitive, many retailers have expanded into food and beverage (F&B) services. This subject provides you with an overview of the key areas involved in managing an F&B set-up. Focus areas will include the diversified F&B formats and business models, regulatory and safety requirements, human resource management and the operational aspects in F&B. There will also be emphasis on how such businesses can use differentiated marketing strategies to enhance their competitive advantage. The subject will also examine emerging trends in the F&B industry.

### **BSI3016 Student Internship Programme (Business Information Technology)**

This 16-week internship programme links your learning with the real world. You will be placed in relevant industrial/commercial organisations so that you can relate what you have learnt in the classrooms with actual work situations. This practical training also provides you with the opportunity to apply the concepts and skills acquired through working in companies and organisations.

### **BSI3024 Student Internship Programme (Law & Management)**

This 16-week internship links your learning with the real world. You will be placed in law firms, the courts or legal departments of private and public organisations, so that you can apply what you have learnt in the classrooms to actual work situations. This practical training also provides you with the opportunity to pick up concepts and skills that can only be acquired at the workplace.

### **BSI3026 Student Internship Programme (Communications & Media Management)**

The 24-week internship programme is designed to expose you to the work environment where you will not only learn how organisations are run, but will also be given the chance to apply what you have learnt in the first two years of your course. You will be interning with media companies or performing in a communications and media role with companies in different industries.

### **BSI3028 Student Internship Programme (Hospitality & Tourism Management)**

This programme is designed to give you first-hand experience of the work environment. It provides an opportunity for learning through the application of the skills sets, techniques and classroom knowledge gained to real life situations. All students must undertake a project that is beneficial to the company where they are placed.

### **BSI3031 Student Internship Programme (Logistics & Operations Management)**

This 20-week internship links your learning with the real world. You will be placed in relevant industrial/commercial/service organisations so that you can relate what you have learnt in the classrooms and apply to an organisation setting. This practical training also provides you with the opportunity to apply logistics and operations management concepts and skills to projects and work situations.

### **BSI3032 Student Internship Programme (Culinary & Catering Management)**

This subject is designed to supplement your education through first-hand experience of the work environment. It allows you to integrate the knowledge and skills you have learnt over the course of your study and apply them to actual situations in the industry.

### **BSI3033 Student Internship Programme (Marketing)**

The Student Internship Programme is intended to supplement your education by providing real-world experience within a formal organisational setting. It couples the necessary integration of substantive knowledge with behavioural skills and communication techniques that are essential for effective professional performance in branding and marketing.

### **BSI3034 Student Internship Programme**

This 20-week internship links your learning with the real world. You will be placed in relevant industrial/commercial organisations so that you can relate what you have learnt in the classrooms with actual work situations. This practical training provides you with the opportunity to apply the concepts and skills acquired through specific jobs with emphasis on increased recognition and enhancement of student internship programme in alignment with the SkillsFuture initiative.

### **BSI3035 Student Internship Programme (Leisure & Events Management)**

This subject is designed to supplement your education through first-hand experience of the work environment. It allows you to integrate the knowledge and skills you have learnt over the course of your study and apply them to actual situations in the industry.

### **BSI3036 Student Internship Programme (Retail Management)**

The Student Internship Programme provides real world experience with reputable retailers and mall management companies. The job rotation offers opportunities to develop deeper practical skills across various retail functions. The programme is also intended to hone the interpersonal skills of interns to prepare them for future employment.

### **BSI3037 Student Internship Programme (Accounting & Finance)**

This structured internship links your learning with the real world. You will be placed in relevant industrial/commercial organisations so that you can bring your classroom knowledge into the working world and apply them in actual work situations. Besides reinforcing technical concepts and mastering of skills in accounting and finance, this practical training also provides the opportunity to build important soft skills such as problem-solving, communication and teamwork.

### **CFI1Z01 Database Management Systems**

This subject introduces the fundamental concepts of relational database systems, the techniques of designing relational databases and the use of query language to display and manipulate data.

### **CIA2C08 Systems Analysis & Design**

This subject equips you with the theory and practice of systems analysis and design to undertake the analysis of a given problem situation, to produce a definition of user requirements and to design an appropriate information system. This subject covers the concepts of system requirements analysis of defined problem, system design using requirement specifications and the post implementation process. You will also learn the transition from business requirement analysis to design in the unified process of systems development, using case modelling and data flow diagrams.

### **CIT1C09 Web Programming**

This subject introduces the concepts of web programming. Topics covered include the development of form-based web application and data driven application. It also covers creation of web pages, and session and state management.

## **GCC1001 Current Issues & Critical Thinking**

This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals.

## **LEA1011/1012/1013 Leadership: Essential Attributes & Practice (LEAP)**

LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.

## **LSW1002 Sports & Wellness**

This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.

## **MCR1001/MCR1002/MCR1003 Career Readiness**

This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. It aims to cultivate the necessary attitudes, skills and knowledge to conduct yourself professionally, adapt and respond to the changing job market environment.

## **TGL1001 Guided Learning**

This is a subject where you will be free to pursue an area of interest through a self-directed approach, guided by staff. You will be expected to demonstrate a sense of curiosity for learning, initiate an opportunity to acquire knowledge and skills, and reflect on your learning journey throughout the subject.



# School of Design

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At the Temasek Polytechnic School of Design, students thrive and learn in an exciting environment which encourages creativity and versatility of expression. Here, they are exposed to the rapid changes in trends, thinking and concepts of the design world. As Singapore's only pure design school that offers the most comprehensive range of design disciplines, the cross-disciplinary and synergistic nature of design work is explored here to the fullest.

The School of Design is well-recognised in the local and international arena as an award-winning institution. Our students have won many prestigious international and local competitions. In 2017, the School was named Institution of the Year at the Crowbar Awards. In addition, external examiners from reputable overseas institutions have consistently attested to the very high quality of our courses. Our graduates have been accorded advanced standing by the best design schools and universities for undergraduate and postgraduate studies worldwide.

Because the design industry is very much a project-based one, learning here is also very hands-on in nature. The School constantly engages industry through dialogues and workshops. You will also have opportunities to work on live projects with some of the best design firms in industry. Not only will you develop your creative and technical skills, you will also hone your own project and time management abilities, thus preparing you for a challenging career in an industry driven by briefs and deadlines.

It is not all studio and classroom work. Design is global in nature. Overseas study trips, exchange programmes with other design institutions, competitions, community projects and an industry internship programme, locally or overseas will immerse you in different ideas and cultures that will better shape your thinking and sharpen your sensitivities as designers.

# Selection Procedure

All applications meeting our minimum entry requirements are considered. Candidates with good O-Level results may apply via the Joint Admissions Exercise (JAE). Candidates with good portfolios and strong inclination for creativity and design may apply through the Early Admissions Exercise (EAE). If shortlisted, you may be required to attend an interview to which you should bring samples/ portfolios of your work in art and design exercises or other media of expression that show evidence of creativity and imagination. You may also show certificates of completed courses and letters of recommendation from employers. Other qualities like commitment, motivation and passion for art and design are most favourably considered. The process seeks to ascertain your aptitude, attitude, knowledge and potential for the course.

# Centres of Excellence

## BeyonDesign Centre

The BeyonDesign Centre uses a collaborative, multi-disciplinary approach to work with industry partners, educational institutions and stakeholders in society on complex design issues that affect today's world. Students from the School of Design work with the Centre to co-create solutions for the wider world. The diversity of disciplines offered by the School allows students to work on a wide range of projects together as a team. These projects center around the issue of sustainability to use design to do good, to do what is needed to improve and bring about a positive impact in the lives of people in the communities that we live in.

**In addition, the School is well-equipped with other key facilities that support a world-class design education. These include:**

## Film Studio

The film studio is equipped to meet industry standards. The set-up includes a turnkey studio lighting system with a suspension system and motorised hoists to enable students to change and adjust studio lights. The space allows students to work on production design and build sets for film projects.

## Post-Production Studio

This high-end facility features the latest HD post-production editing suites used in industry today. Using industry-standard equipment and editing software, the suites represent a complete workflow from filming to editing in HD format allowing students to film and edit on the go, cutting post-production time significantly.

## Heavy Model Making Workshop

This is a comprehensive workshop for wood, metal, plastic and ceramics work. Here, students will explore 3D ideas and concepts and learn the basics of product semantics through making maquettes, highly-finished models and aesthetic prototypes.

## Digital Photography Studio

Equipped with state-of-the-market technology and innovation, the digital photo studio caters to the emergence and convergence of electronic manipulation, traditional media and analogue imaging.

## Interaction Lab

This unique lab allows students to experiment with digital imaging, projection and interactivity.

## Model Simulation Studio

This studio is used for taking interior photographs of models to support studio-based projects and self-directed learning. It is equipped with a sophisticated model scope, digital camera, computer, and basic photographic accessories complete with lighting, product table and backdrops.

# Apparel Design & Merchandising



Got dreams to take the fashion world by storm? Believe in yourself as an idea-driven trend-setter and style leader? If you think you have what it takes to make it in the fashion industry, let this course be your springboard.

Work in a studio surrounded by like-minded designers and merchandisers sharing the same passion and ambition to someday make it big in the fashion world. Start with an overview of the fashion industry, then decide on your specialisation – in Fashion Design or in Retail Merchandising.

In the Fashion Design option, you will be trained as a highly skilled professional, well-versed in the art and the craft of intricate and functional garment design and construction. Learn to use the key tools of drafting, draping and sewing to translate avant garde ideas to actual wearable garments. As a new generation designer you will be encouraged to experiment and explore new trends in fashion design and production.

If you enjoy the business end of fashion, the Retail Merchandising option will teach you about all the activities related to the fashion business. You will learn to develop, market and promote strong compelling brands. You will study trends and strategies related to fashion retailing, such as the emergence of blogshops and e-commerce sites and how best to use social media marketing strategies to support these online stores.

Along the way, there is plenty to do – study trips to the world's design capitals, real-life industry projects with real clients, opportunities to design, produce, market and sell your product, pick up fashion imaging techniques, manage and choreograph runway shows, style lookbooks, intern with designers and retailers and more.

If fashion is your passion, come do what you love in the Apparel Design & Merchandising course.



There are high exemplary students in the cohort, who have the full capabilities and skillset to become leaders and change makers in the fashion industry and society in general and this is testament to the high quality of pedagogy and delivery of teaching at Temasek Polytechnic.

Dr Timo Rissanen  
Assistant Professor of  
Fashion Design & Sustainability  
School of Fashion  
Parsons The New School for Design

## Career Opportunities

Retail Merchandising graduates can land successful careers as fashion stylists, retail supervisors, fashion advisors, buyers, fashion editors, visual merchandisers, display artists and fashion show coordinators and event managers, while Fashion Design graduates make fashion waves as apparel and textiles designers, merchandisers with apparel manufacturers and product development department, assistant pattern-makers and sample-makers. Many of our graduates go on to become successful fashion bloggers and fashion entrepreneurs in their own right.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Subjects	
Core Subjects	: 60 credit units
Option Subjects	: 27 credit units
Total Credit Units Completed	: 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 7
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Art/ Art & Design, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design Studies, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Higher Art, Human & Social Biology, Integrated Science, Media Studies (English), Media Studies (Chinese), Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with mild or severe colour vision deficiency or suffering from severe visual impairment should not apply for this course.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
DCS1017	Communication & Information Literacy	1	2	
DCS1018	Workplace Communication	1	2	
DCS1019	Persuasive Communication	1	2	
DGS1002	Global Studies	1	3	
DGS1003	Managing Diversity at Work*	1	3	
DGS1004	Global Citizenship & Community Development*	1	3	
DGS1005	Expressions of Culture*	1	3	
DIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
DSI3024	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1101	History of Costume	1	3
DAD1148	Textiles Fundamentals	1	3
DAD1164	Production Drawings	1	3
DAD1165	Brand Concept	1	3
DAD1166	Fashion Illustration	1	3
DAD1167	Sewing	1	3
DPD1436	Visual Presentation	1	3
DPS1031	Design Fundamentals	1	3
DPS1032	Collaborative Design	1	3
DVC1509	Digital Essentials	1	3
DAD2113	Sourcing & Costing	2	3
DAD2157	Fashion Imaging	2	3
DAD2158	Brand Development	2	3
DVC2572	Tactile Design	2	3
DAD3161	Brand Experience	3	3
DAD3166	Industry Studio Project	3	6
DMP3012	Major Project: ADM	3	9

DIPLOMA SUBJECTS – OPTION SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Fashion Design Option (Year 2)</u>			
DAD2163	Sewing 2	2	3
DAD2164	Drafting	2	3
DAD2165	Drafting 2	2	3
DAD2166	Draping	2	3
DAD2168	Apparel Design Project	2	6
DAD3164	Apparel Design Project 2	3	6
DAD3165	Draping 2	3	3
<u>Retail Merchandising Option (Year 2)</u>			
DAD2159	Online Retail	2	3
DAD2160	Retail Space Planning	2	3
DAD2161	Retail Design	2	3
DAD2162	Retail Merchandising Project	2	6
DAD2167	Retail Buying	2	3
DAD3162	Digital Marketing	3	3
DAD3163	Retail Merchandising Project 2	3	6

# Communication Design



Allergic to poorly designed badly laid-out editorial work? Do tacky advertisements with five fonts and clashing colours make your eyes water? Pained by cringe-worthy brand campaigns with vague motherhood statements? Ever lamented the lack of fresh ideas and believe you can do much better than what you see out there?

If so, you're not alone. Find your calling in this course populated by like-minded typo geeks, digital imaging whizzes and brand gurus who are driven to find the best design solutions to communication conundrums. This is where you will learn all the basics of fundamental graphic design skills and get to specialise in one core area of design – Branding, Image Design, and Integrated Communication. You will have the best of both worlds – the deep skills of a specialist area and the core fundamental skillsets of good graphic design. In short, you will graduate as a versatile and responsive designer comfortable with the digital and the analogue world of design, traits very much sought-after by industry today.

Three years of projects, study trips, industry projects, competitions, exchange programmes, internships, workshops and talks by award-winning industry giants will put the shine on your portfolio which typically opens doors to the best design

schools in the world and employment opportunities at some of the best creative agencies in town.

If you have the curiosity, drive and tenacity to chase down ideas, thrive on deadlines, love to work with images, words and visuals. If you want to impact the way people communicate in order to influence trends and lifestyles, come do what you love here in the Communication Design course.



Compared to students at my home institution and the creative work I have seen in comparable courses in Canada, Germany and many other countries, the overall performance is at least equal to, if not better than, other institutions I have observed in my 30-plus years of teaching.

Hanno Ehse  
Professor of Design  
Director MDes  
School of Graduate Studies  
NSCAD University, Canada

## Career Opportunities

This diploma course equips a new breed of savvy designers with a versatile and flexible set of skills to work across traditional and digital communication platforms. Our graduates can find themselves in careers in the creative, media, communications, publishing, branding industry. Many are award-winning creative directors, art directors, brand specialists, graphic designers, photojournalists and illustrators.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Option Subjects	: 9 credit units
Total Credit Units Completed	: 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 7
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Art/ Art & Design, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design Studies, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Higher Art, Human & Social Biology, Integrated Science, Media Studies (English), Media Studies (Chinese), Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with mild or severe colour vision deficiency or suffering from severe visual impairment should not apply for this course.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
DCS1017	Communication & Information Literacy	1	2	
DCS1018	Workplace Communication	1	2	
DCS1019	Persuasive Communication	1	2	
DGS1002	Global Studies	1	3	
DGS1003	Managing Diversity at Work*	1	3	
DGS1004	Global Citizenship & Community Development*	1	3	
DGS1005	Expressions of Culture*	1	3	
DIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
DSI3033	Student Internship Programme	3	12	

*\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.*

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIM1367	Ideation & Visual Literacy	1	3
DPS1031	Design Fundamentals	1	3
DPS1032	Collaborative Design	1	3
DVC1506	Typography	1	3
DVC1509	Digital Essentials	1	3
DVC1542	Photography	1	3
DVC1550	History of Graphic Design	1	3
DVC1564	Graphic Stylistation & Techniques	1	3
DIM2368	Studio Project	2	6
DIM2377	Studio Project 2	2	6
DIM2378	Studio Project 3	2	6
DIM2382	Design for Screen	2	3
DIM2383	Design for Screen 2	2	3
DVC2514	Advertising	2	3
DVC2572	Tactile Design	2	3
DVC2573	Kinetic Graphics	2	3
DVC2575	Design for Print	2	3
DIM3377	Trends & Research	3	3
DIM3378	Industry Studio Project	3	6
DMP3022	Major Project: Communication Design	3	9

## DIPLOMA SUBJECTS – OPTION SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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### Image Design Option (Year 2)

DIM2379	Visual Narratives	2	3
DIM2380	Image Making Techniques	2	3
DVC3571	Conceptual Imaging	3	3

### Branding Option (Year 2)

DPS2022	Brand Strategies	2	3
DPS3582	Brand Systems	3	3
DVC3536	Corporate Identity	3	3

### Integrated Option (Year 2)

DIM2381	Designing for Digital Ecosystem	2	3
DVC2576	Integrated Campaign	2	3
DIM3379	Advertising Strategy	3	3

# Digital Film & Television



You love watching movies but more importantly, you love making your own movies on the side. You only wish you could do more with better equipment and deeper knowledge. Show business holds a deep allure for your creative critical movie-maker eye.

This is where we give you the tools and the inspiration to write good screenplays, direct strong emotive dramas and documentaries and maybe one day even produce an award-winning film. Here, you not only learn the technicalities of making a good film, but all the other stuff needed to get your film up on the big screen. Learn to pitch winning story ideas that will hook an audience. Explore the possibility of creating content for multiple platforms. Work in teams to write, produce, direct and edit a good piece of work. Compete in prestigious local and international film competitions. From the National Youth Film Awards, the Crowbar Awards, the New York Festival of Film & Television to Sundance to Cannes, our films have travelled far and won major awards. Yours could be next.

Be mentored by lecturers who are award-winning writers and producers with years of experience. Work with the latest cameras and facilities in video production, including a fully equipped industry-standard film studio. Our strong partnerships with the media industry will also open opportunities for 'live' projects, collaborative work, mentorship and internship programmes.

If you have a lifelong love affair with film, and an overwhelming passion to tell your stories on film, come do what you love in the Digital Film and Television course and get a headstart into a rewarding career in the film and media industry.



Mix talented students with an accomplished and dedicated faculty and you get a dynamic film school. The best student work at Temasek Polytechnic is comparable to the best in other film schools in Europe and America.

Professor Mark Jonathan Harris  
Distinguished Professor  
School of Cinematic Arts  
University of Southern California  
and three-time Academy Award Winner

## Career Opportunities

Your skills will prepare you for challenging and rewarding careers in the growing film and media industry, in Singapore, and internationally. You might just be the next big name film or television producer/ director, digital post-production editor, or top-notch director of photography.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Option Subjects	: 9 credit units
Total Credit Units Completed	: 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 7
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Art/ Art & Design, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design Studies, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Higher Art, Human & Social Biology, Integrated Science, Media Studies (English), Media Studies (Chinese), Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with mild or severe colour vision deficiency or suffering from severe visual impairment should not apply for this course.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
DCS1017	Communication & Information Literacy	1	2	
DCS1018	Workplace Communication	1	2	
DCS1019	Persuasive Communication	1	2	
DGS1002	Global Studies	1	3	
DGS1003	Managing Diversity at Work*	1	3	
DGS1004	Global Citizenship & Community Development*	1	3	
DGS1005	Expressions of Culture*	1	3	
DIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
DSI3026	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DMV1601	Creative Storytelling	1	3
DMV1604	Camera & Lighting	1	3
DMV1659	Introduction to Directing	1	3
DMV1661	Location Sound	1	3
DMV1662	Video Editing	1	3
DMV1663	Film Genre	1	3
DMV1664	Short Film Project	1	6
DPS1031	Design Fundamentals	1	3
DPS1032	Collaborative Design	1	3
DMV2644	Project Pitching	2	3
DMV2645	Production Planning & Management	2	3
DMV2647	Directing	2	3
DMV2657	Documentary Project	2	6
DMV2660	Studio Production	2	3
DMV2662	Production Design in Film & Television	2	3
DMV2664	Overview of Non-Fiction	2	3
DMV2668	Screen Writing	2	3
DMV2669	Short Film Project 2	2	6
DMP3021	Major Project: DFT	3	9
DMV3666	Industry Film Project	3	6

## DIPLOMA SUBJECTS – OPTION SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Production &amp; Technical Option (Year 2)</u>			
DMV2667	Audio Post	2	3
DMV3664	Cinematography	3	3
DMV3665	Advanced Editing	3	3
<u>Producing &amp; Directing Option (Year 2)</u>			
DMV2663	Marketing & Distribution	2	3
DMV2665	Writing for Non-Fiction Film & Television	2	3
DMV3661	Advanced Directing	3	3



## Career Opportunities

Designers who are versatile enough to understand and manage projects that address the confluence of architecture, landscape architecture and urban design are likely to be in demand in cities all over the world. Well aligned to the needs of the industry, the course prepares school-leavers to be graduates with a versatile skillset and a sensitive understanding of industry demands. As our graduate, you will readily find employment in landscape architecture and architecture practices as a landscape designer and architecture assistant. You will be well trained to work in park consultancies, project management firms, urban design consultancies, and multidisciplinary design practices.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
DCS1017	Communication & Information Literacy	1	2	
DCS1018	Workplace Communication	1	2	
DCS1019	Persuasive Communication	1	2	
DGS1002	Global Studies	1	3	
DGS1003	Managing Diversity at Work*	1	3	
DGS1004	Global Citizenship & Community Development*	1	3	
DGS1005	Expressions of Culture*	1	3	
DIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
DSI3027	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 87 credit units
Total Credit Units Completed	: 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 7
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Art/ Art & Design, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design Studies, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Higher Art, Human & Social Biology, Integrated Science, Media Studies (English), Media Studies (Chinese), Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

\* *Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with mild or severe colour vision deficiency or suffering from severe visual impairment should not apply for this course.*

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DED1821	Form & Space Exploration	1	3
DED1822	Architecture Design Studies	1	3
DED1824	Digital Visualisation	1	3
DED1828	Form & Space Exploration 2	1	3
DED1829	Sustainable Design	1	3
DIA1236	Architectural Drawing 2	1	3
DIA1237	Studio Project	1	6
DIA1238	Space Planning	1	3
DPS1031	Design Fundamentals	1	3
DPS1032	Collaborative Design	1	3
DRH1701	Architectural Drawing	1	3
DED2826	Urban Design Studies	2	3
DED2830	Digital Visualisation 2	2	3
DED2832	Building Technology 2	2	3
DED2835	Building Technology	2	3
DED2836	Landscape Design Studies	2	3
DED2837	Architecture Studio Project 2	2	6
DED2838	Architecture Studio Project 3	2	6
DED2839	Digital Visualisation 3	2	3
DED2840	Sustainable Environment	2	3
DIA2238	Materials & Finishes	2	3
DED3830	Industry Studio Project	3	6
DMP3024	Major Project: EVD	3	9

# Interior Architecture & Design



The Interior Architecture & Design course is well-established in industry circles as a course that produces high-quality award-winning spatial designers. The course works with the industry through 'live' collaborative projects, mentorship and internship opportunities. Our partners include reputable design studios and clients such as Ong & Ong, SCDA, Aedas, FARM, DP Architects, DBS, Google Asia, M.Moser, HBA and many more.

Over three years, build and layer your knowledge and skills through four core clusters – Foundation, Contextual Place-making, Trends & Issues and Assembly & Materiality. Starting with design basics, you will learn how to adapt the design of interior spaces to people's needs and contexts. The course encourages a wider exploration of issues and constraints that affect sustainable design. In keeping abreast of global trends in design and contemporary lifestyles, you will gain a more universal perspective of design and that will help you provide thoughtful, human-centric and holistic solutions to complex design problems.

You will be guided and mentored by tutors with many years of practice in the fields of architecture, interior design and exhibition design; many of whom are interior designers and registered architects with global experiences. Shaping futures and building careers, the course offers a unique learning

environment and integrated studios where new ideas and possibilities in spatial design are explored and developed. Overseas trips, student exchanges and opportunities to network with industry leaders further provide the extra value in the learning experience offered in the course.

If you are someone who enjoys challenging the norms in architectural interior architecture design, relish conceptualising different approaches to create stimulating and functional environments, come do what you love in the Interior Architecture & Design course.



DesignSingapore Council is encouraged by the course in the studio practice forming strong partnerships and collaborations with the industry for project based learning so that students are more industrially prepared.

Jeffrey Ho  
Executive Director  
DesignSingapore Council  
Ministry of Communications and Information

## Career Opportunities

Armed with professional skills to provide interior architectural design services for corporate, exhibition, institutional and residential projects, our graduates find careers as designers and consultants in interior design consultancies, design-related businesses or an architect's office. They are also found in event management, exhibition design and in-house design teams for museums and galleries. Many graduates are also successful entrepreneurs.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 87 credit units
Total Credit Units Completed	: 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 7
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Art/ Art & Design, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design Studies, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Higher Art, Human & Social Biology, Integrated Science, Media Studies (English), Media Studies (Chinese), Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with mild or severe colour vision deficiency or suffering from severe visual impairment should not apply for this course.*

## Course Structure

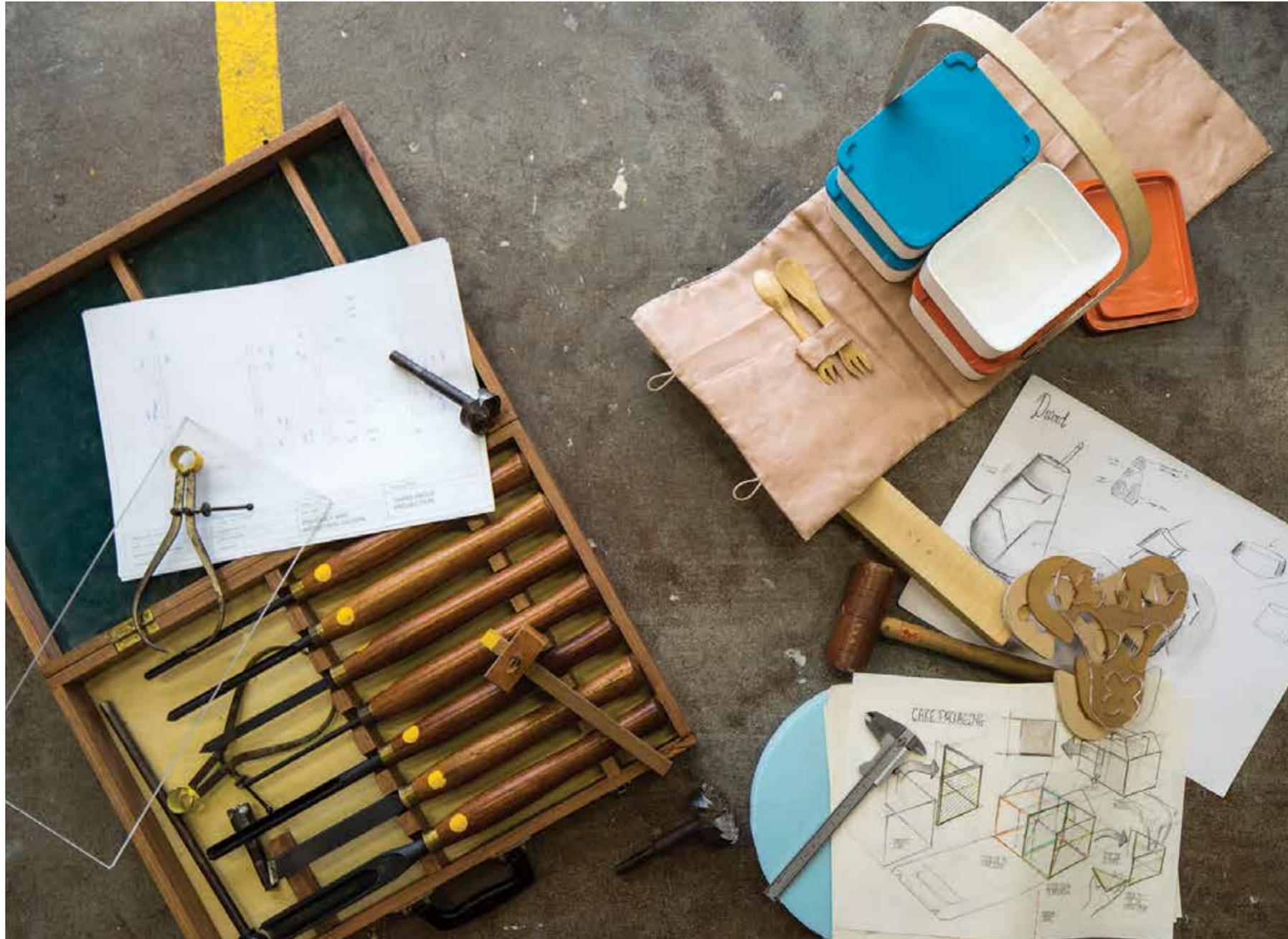
TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
DCS1017	Communication & Information Literacy	1	2	
DCS1018	Workplace Communication	1	2	
DCS1019	Persuasive Communication	1	2	
DGS1002	Global Studies	1	3	
DGS1003	Managing Diversity at Work*	1	3	
DGS1004	Global Citizenship & Community Development*	1	3	
DGS1005	Expressions of Culture*	1	3	
DIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
DSI3034	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DED1821	Form & Space Exploration	1	3
DED1822	Architecture Design Studies	1	3
DED1824	Digital Visualisation	1	3
DED1828	Form & Space Exploration 2	1	3
DED1829	Sustainable Design	1	3
DIA1236	Architectural Drawing 2	1	3
DIA1237	Studio Project	1	6
DIA1238	Space Planning	1	3
DPS1031	Design Fundamentals	1	3
DPS1032	Collaborative Design	1	3
DRH1701	Architectural Drawing	1	3
DED2830	Digital Visualisation 2	2	3
DED2839	Digital Visualisation 3	2	3
DIA2238	Materials & Finishes	2	3
DIA2239	Spatial Design Studies	2	3
DIA2240	Interior Design Studio Project 2	2	6
DIA2241	Interior Design Issues & Trends	2	3
DIA2242	Interior Design Studio Project 3	2	6
DIA2243	Construction & Detailing 2	2	3
DRH2719	Construction & Detailing	2	3
DRH2721	Interior Building Systems	2	3
DIA3236	Industry Studio Project	3	6
DMP3023	Major Project: IAD	3	9

# Product & Industrial Design



If you're an 'ideas' person, love to mull over issues and challenges, think differently from the rest of the crowd and enjoy working with your hands, then the world of product design awaits. This course is for curious and creative thinkers and problem-solvers who believe they have the vision and the skills to offer design solutions that work. Whether it is a lifestyle product, a communication device or a stylish piece of furniture, or even a service experience, product designers are well-placed to create powerful design solutions and ideas that influence and improve our way of life.

The ability to blend ideation, technology and craftsmanship is a 21st century skill that is very much valued by industry today. The course's project-driven curriculum lets you work with actual clients and design studios through 'live' industry projects. Global exposure through study strips, exchange programmes, competitions, mentorships and internships will provide plenty of opportunity to add shine and polish to your work. In this course, we give you room to be creative and to think about the next big idea in cracking the project brief.

You will be guided by a team of experienced lecturers and technical specialists. The TP Product & Industrial Design graduate is highly sought-after by startups and established

firms in space-making, consumer electronics, communication, fashion, technology and even in non-traditional sectors such as banks, government agencies and hospitals. So if you enjoy thinking of original approaches to design issues and problems and believe your ideas can make a difference in the way we live, come do what you love in this award-winning course.



The School has continued to stay relevant by producing creative thinkers, not just designers, and is cultivating a unique attitude towards design, not just skills and knowledge of design. Design thought leadership will be critical in the coming years for the graduates and the School.

Low Cheaw Hwei  
Vice President  
Global Head of Product & Service Design  
Head of Design, Asia  
Philips Design  
Philips Electronics (S) Pte Ltd

## Career Opportunities

Product Design graduates are found in diverse fields such as consumer electronics, biomedical products, furniture design, packaging design, transportation design, product merchandising, service design, object/ craft design, exhibition design, advertising and environmental design, including building interiors and signage. Many of our graduates have also started their own successful design or design-related studios and enterprises.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 87 credit units
Total Credit Units Completed	: 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 7
Any two other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must also have sat for at least one of the following subjects:

Additional Combined Science, Additional Science, Art/ Art & Design, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design Studies, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Higher Art, Human & Social Biology, Integrated Science, Media Studies (English), Media Studies (Chinese), Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with mild or severe colour vision deficiency, or suffering from uncontrolled epilepsy, profound hearing loss or severe visual impairment should not apply for this course.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
DCS1017	Communication & Information Literacy	1	2	
DCS1018	Workplace Communication	1	2	
DCS1019	Persuasive Communication	1	2	
DGS1002	Global Studies	1	3	
DGS1003	Managing Diversity at Work*	1	3	
DGS1004	Global Citizenship & Community Development*	1	3	
DGS1005	Expressions of Culture*	1	3	
DIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
DSI3029	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DPD1432	Prototyping Workshop	1	6
DPD1433	Evolution of Industrial Design	1	3
DPD1434	Concept Visualisation	1	3
DPD1435	Form Aesthetics	1	3
DPD1436	Visual Presentation	1	3
DPD1437	Prototyping Lab	1	3
DPS1031	Design Fundamentals	1	3
DPS1032	Collaborative Design	1	3
DVC1509	Digital Essentials	1	3
DPD2433	Design for Usability	2	3
DPD2434	Design for Experience	2	3
DPD2435	Form Aesthetics 2	2	3
DPD2437	Visual Presentation 2	2	3
DPD2438	Prototyping Lab 2	2	3
DPD2439	Studio Project	2	6
DPD2440	Studio Project 2	2	6
DPD2441	Material & Fabrication Lab	2	3
DMP3011	Major Project: PID	3	9
DPD3433	Prototyping Lab 3	3	3
DPD3434	Industry Studio Project	3	6
DPD3435	Design for Innovation	3	3
DPD3436	Studio Project 3	3	6

# Subject Synopses

## DAD1101 History of Costumes

Learn how costumes evolve from antiquity to the present day. Understand how the historical perspective impacts the design of today's contemporary fashion; including the new paradigm shifts of the 21st century.

## DAD1148 Textiles Fundamentals

The subject covers the fundamental knowledge on the production of fibres, yarns and fabrics. You will also learn about the characteristics and applications of these materials, particularly their use in the fashion-related industries.

## DAD1164 Production Drawings

Technical drawings are vital to apparel production. In this subject, you will learn both traditional drawing skills by hand as well as digital technical drawing skills using the latest drawing software.

## DAD1165 Brand Concept

The subject covers the concept of branding. You will learn how a product's characteristics, benefits and its consumer profiles can lead to identifying the brand positioning of a brand.

## DAD1166 Fashion Illustration

In this subject, you will pick up the fundamental skills of drawing the human figure through the principles of lines, shapes and volumes. The subject also expands on the artistic areas of fashion illustration using various art media and techniques.

## DAD1167 Sewing

You will learn how to operate and use sewing machines such as the industrial-grade machines and home embroidery machines. You will also learn basic garment construction and sewing techniques that are in line with industry standards.

## DAD2113 Sourcing & Costing

In this subject, you will learn about the principles of sourcing and cost structures in the global textile and apparel industry. You will be taught how to compare suppliers, analyse prices and evaluate profit margins.

## DAD2157 Fashion Imaging

Through the technical skills of photography and image editing, you will learn how to visually express and communicate fashion ideas and how to create a lookbook.

## DAD2158 Brand Development

This subject covers the importance of developing a brand story and a brand personality that will help differentiate a brand for its intended audience and guide in executing the brand style.

## DAD2159 Online Retail

With online shopping very much a part and parcel of life today, you will learn the fundamentals of running an online business; in particular, those related to fashion products. They will also learn how to manage online sales operations.

## DAD2160 Retail Space Planning

Here, you will learn how to make the best use of available floor space in a brick and mortar retail store to maximise profits. You will learn to match assigned spaces to sales revenues and costs, in order to effectively increase product sales.

## DAD2161 Retail Design

You will learn what makes a successful retail store design and how to best present the correct image of a store to reflect its brand identity. You will also learn how to reinforce the store image to attract shoppers.

## DAD2162 Retail Merchandising Project

Why do certain brands succeed? This subject covers the dynamics behind the retail environment of fast fashion brands like H&M or Forever 21. You will study the key concept of brand, merchandise mix, target customers, pricing and promotions and how these combine to make a successful retail brand.

## DAD2163 Sewing 2

The subject covers complex specialised sewing techniques. You will learn how to select the appropriate interface and lining for sophisticated garments. You will also learn specialised techniques to manage fabrics that may be challenging to handle.

## DAD2164 Drafting

You will learn how to make flat patterns and construct skirts and pants. This process includes the taking of accurate body measurements to the production of actual garments.

## DAD2165 Drafting 2

Covering an advanced level of knowledge and techniques of draping, you will learn how to achieve a variety of designs by creating different drape effects using various types of fabrics.

## DAD2166 Draping

In this subject, you will acquire the basic skills of draping. This includes the preparation of dress forms and the application of basic dart manipulation skills to achieve the desired design for a top and a skirt.

## DAD2167 Retail Buying

What to buy and how much to buy - these are some of the questions retail buyers grapple with in making buying decisions. This subject teaches the principles of merchandising mathematics frequently used by buyers. You will also learn how to develop buying plans for different retail organisations.

## DAD2168 Apparel Design Project

Learn to conceptualise, design and make ready-to-wear styles of womenswear and menswear. You will also learn about quality control and the use of care labels commonly used in the apparel industry.

## DAD3161 Brand Experience

You will learn how to create strong brand experiences that will emotionally engage consumers, and to look for new ways to enhance visibility and improve the overall brand experience.

## DAD3162 Digital Marketing

In this subject, you will discover what makes online businesses successful. You will also learn strategies in social media marketing and other marcom methods to connect online stores with the right customer bases in order to expand sales.

## DAD3163 Retail Merchandising Project 2

Luxury brands command a certain niche market. In this subject, you will study the dynamics of the retail environment behind luxury fashion brands. The subject examines the key concepts of brand, merchandise mix, target customers, pricing and promotions and how these combine to make a successful brand.

## DAD3164 Apparel Design Project 2

The subject covers conceptualising, designing and production of haute-couture style of womens' wear and men's wear, which involves advanced level of pattern making and sewing techniques.

## DAD3165 Draping 2

The subject covers advanced level of knowledge and techniques of draping to achieve variety of designs by creating different draped effects using various types of fabrics.

## DAD3166 Industry Studio Project

The subject provides the experience of working on live project briefs provided by industry professionals. From researching on current consumer trends to developing creative ideas to execute the brief. The subject also reinforces the practice of working as a group.

## DCS1017 Communication & Information Literacy

In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) when writing and delivering oral presentations.

## DCS1018 Workplace Communication

In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) will be covered.

## DCS1019 Persuasive Communication

In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) will also be applied when engaging in verbal and written communication.

## DED1821 Form & Space Exploration

This subject introduces the fundamental design elements that constitute the built-environment and develops a design vocabulary that is both elemental and timeless. It covers the sculpting and manipulation of form using various model making materials and explores the implications to the perception of space.

## DED1822 Architecture Design Studies

This subject covers the history and appreciation of architecture from ancient to the contemporary times. The subject also encompasses specific influences on the architecture of Singapore.

## DED1824 Digital Visualisation

The subject introduces the fundamentals of the use of computer-aided design (CAD) software and three dimensional modelling software that is relevant to specific application in the context of built environment.

## DED1828 Form & Space Exploration 2

This subject introduces spatial concepts through the exploration of how form and space may be organised. It further examines ordering principles of design and spatial composition using 3-dimensional models. It will also cover how colour and light can impact the perception of form and space. Anthropometry and ergonomics are introduced to help you understand the interaction of the human body with form and space.

## DED1829 Sustainable Design

The subject introduces notions of being environmentally friendly by examining how site context and environmental elements can impact human comfort in any built environment. The subject also involves the exploration of space and form as an ecological response to tropical climate. It will focus on passive design strategies that take into consideration ventilation and natural light.

## DED2826 Urban Design Studies

The subject covers basic urban vocabulary and focuses on key urban design principles and trends relevant for the design of resilient and sustainable cities. It draws on Singapore's urban history and makes references to key urban design movements that have shaped cities of today. The subject also introduces local planning guidelines and strategies.

## DED2830 Digital Visualisation 2

The subject covers the fundamentals of the use of digital visualisation and presentation software that are relevant to specific application in the context of the built environment.

## DED2832 Building Technology 2

This subject covers the fundamental understanding of the basic properties of masonry and reinforced concrete structural systems and their respective construction techniques. The subject will cover topics such as the application of basic masonry and reinforced concrete systems and construction techniques in built environments.

## DED2835 Building Technology

This subject covers the fundamental understanding of the basic properties of timber and steel structural systems and their respective construction techniques. The subject will cover topics such as the application of basic timber and steel systems and construction techniques in built environments.

## DED2836 Landscape Design Studies

This subject introduces the historical development of landscape design periods from antiquity to the contemporary and fundamental knowledge of landscape architecture principles. It covers the application of this knowledge in developing a landscape design concept in the built environment that integrates architecture and landscape architecture with softscapes, hardscapes and waterscapes, to enhance biodiversity and the user experience.

## DED2837 Architecture Studio Project 2

This subject introduces a design contextual framework with the focus on site analysis as a vital step in the design process for a built environment. The subject involves the evaluation of a given site to identify environmental, program, and development constraints and opportunities. It covers the collation of data collected by site investigation that needs to be interpreted and assimilated to explore design proposals through the design process.

## DED2838 Architecture Studio Project 3

This subject is issue-driven and introduces a design contextual framework with the focus on deriving and establishing design issues as a vital step in the design process for a built environment. The subject involves the evaluation of a given site to identify environmental, program, and development constraints and opportunities. It covers the collation of data collected by site investigation that needs to be interpreted and assimilated to explore design proposals through the design process. The subject will emphasise how design problems may be identified through the exploration of an urban site and that proposals should be conceived as integrated environments of building and landscaping, which are mutually supporting one another.

## DED2839 Digital Visualisation 3

The subject introduces the fundamentals of the use of BIM software that is relevant to specific application in the context of built environment.

## DED2840 Sustainable Environment

This subject introduces the meaning of sustainability from the perspective of the preservation of natural habitats with the focus on blue and green natural systems and their relationship with habitats, both natural and human. The subject will cover how to conduct a comprehensive site analysis, leading to the application of sustainable design strategies.

## DED3830 Industry Studio Project

This studio is industry-driven and will equip you with skills and knowledge of working in small groups with the focus on collaborative practice-based scenarios. This studio will involve you with agents/clients in the industry and practice, and ultimately prepare you for your Student Internship Programme.

## DGS1002 Global Studies

This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.

## DGS1003 Managing Diversity at Work

You will examine your own identity, study different forms of diversity and apply strategies to inspire positive collaboration in a diverse workplace. Through a residential stay, you will have the opportunity to experience living and working with peers from different backgrounds.

## DGS1004 Global Citizenship & Community Development

This subject highlights the inter-connectedness of the world today, bringing about what it means to be a Global Citizen. You will gain an awareness of the impacts of globalisation and the concepts of social responsibility and sustainable community development. This subject also challenges you to be actively engaged in a social or environmental project.

## DGS1005 Expressions of Culture

Whether telling stories, building monuments or celebrating rites of passage, expressions of culture are at the core of cultural diversity. In this subject, everyday objects, artistic creations and popular culture are explored as ways of understanding the values and beliefs of a society. You will explain the role of cultural heritage stakeholders and learn to conduct cultural story-telling. By taking this subject, you will benefit by acquiring a greater understanding and appreciation of the complexities surrounding our cultural assets.

## DIA1236 Architectural Drawing 2

The subject covers rendering techniques with the use of tone, shade, shadow and colour. The subject also teaches the methods of selecting appropriate media, digital drawing and rendering techniques, as well as visual presentation techniques to communicate design ideas, including storyboarding.

## DIA1237 Studio Project

This subject is exploratory in nature and introduces a design contextual framework with the focus on form exploration in the design process. The subject involves the introductory evaluation of a given site to identify environmental, program, and development constraints and opportunities. It covers the collation of data collected by basic site investigation assimilated to explore design proposals through the design process.

## DIA1238 Space Planning

The subject focuses on understanding of functional planning of spaces that sets the stage for effective user experience. The subject addresses issues pertaining to anthropometry, ergonomics, behavioural science and design programming and provides a platform for exploring various techniques to creatively resolve challenges related to function and quality of human environments.

## DIA2238 Materials & Finishes

The subject focuses on the study of materials commonly used in the built environment with emphasis on both their functional and sensorial properties. It introduces you to basic materials and surface finishes as an essential component for achieving an intended spatial quality. The subject also introduces you to the idea of materials as limited resources that should be used in an efficient and sustainable manner.

## DIA2239 Spatial Design Studies

The subject covers the communication of an experience within a 3-dimensional space which contributes to spatial image and identity that includes considerations such as light, materiality, etc., in a relation to a site context.

## DIA2240 Interior Design Studio Project 2

This subject covers a design contextual framework with the focus on the analysis of a site (person/place/programme), a vital step in the design process of an interior environment. The subject involves the evaluation of a given site to identify environmental, program, and development constraints and opportunities. It covers the collation of data collected by site study that needs to be interpreted and assimilated to explore design proposals through the design process. The subject will have emphasis on the exploration of form and space in relation to a program with functions.

## DIA2241 Interior Design Issues & Trends

The subject explores emerging issues such as socio-cultural, economic and political, and environment and conservation, and also introduces current design trends that impact design decisions.

## DIA2242 Interior Design Studio Project 3

This subject is issue-driven and introduces a design contextual framework with the focus on deriving and establishing design issues and trends, as a vital step in the design process of an interior environment. The subject involves the evaluation of a given site to identify environmental, program, and development constraints and opportunities. It covers the collation of data collected by site investigation that needs to be interpreted and assimilated to explore design proposals through the design process.

## DIA2243 Construction & Detailing 2

This subject focuses on the construction of interior architecture and design elements as an amalgam of three distinct characteristics: the importance of materials as component in construction, the significance of fabrication as assembly, and shop drawings of the elements.

## DIA3236 Industry Studio Project

This studio is industry-driven and will equip you with skills and knowledge of working in small groups with the focus on collaborative practice-based scenarios. This studio will involve you with agents/clients in the industry and practice, and ultimately prepare you for your Student Internship Programme.

## DIM1367 Ideation & Visual Literacy

This subject introduces you to basic idea generation, analysis and synthesis techniques within a problem-solving framework. Through these techniques, you will explore and develop fluidity of thought as well as an analytical mind. It also introduces visual literacy through which you develop your personal visual language to communicate a great variety of concepts. You will also develop and demonstrate your aesthetic awareness and design sensibility in order to communicate successfully in our increasingly image-saturated culture.

## DIM2368 Studio Project

This subject serves as an exploratory platform for collaborative engagement among students with varied interests to produce a project that integrates learning from earlier subjects. You will experience design and production processes that align with professional studio practice, with the option of working collaboratively in small teams or independently. Opportunities will be given for you to investigate and explore a wide range of media, materials, techniques and processes. You will learn to think creatively and apply yourself to a range of design scenarios using a variety of approaches.

## DIM2377 Studio Project 2

The subject covers in-depth research and analysis of information in order to identify problems. Through ideation techniques and implementation of a creative process, solutions are then proposed to solve the identified problem. Technical and production skills in areas of specialisation taught in previous subjects are practiced in creating a well-integrated and aesthetic solution that is cross platform. It also provides the practical experience of managing a project such as time management, production and a presentation.

## DIM2378 Studio Project 3

This is an advanced module that offers you the opportunity to conduct further investigation into your preferred areas of expertise to produce a highly developed project. You may decide to focus your studies in an area of specialisation or experiment with alternative design processes and methodologies to expand on your design vocabulary and personal repertoire. You are expected to align your learning closely with professional studio practices while working collaboratively in small teams or independently. You will demonstrate the ability to think creatively and apply yourself to a range of design scenarios using a variety of approaches to produce a comprehensive outcome that demonstrates a high level of design sensitivity, maturity and sophistication.

## DIM2379 Visual Narratives

The subject is about creating visuals with a persuasive story and a point of view. It also covers techniques and knowledge required to create images suitable for narrative formats such as storyboards, campaigns, editorial content, manuals and picture books. Techniques of conceptualisation, ideation and graphic composition through the various image-making process will also be the mainstay for the subject.

## DIM2380 Image Making Techniques

The subject covers different techniques in image creation. It also covers multiple image-making mediums and techniques, including different media and styles in illustration and photography. The emphasis is to create an original and spontaneous composition, to adopt an exploratory approach to form and expression.

## DIM2381 Designing for Digital Ecosystem

This subject aims to develop critical and practical skills appropriate for expanding the understanding of the creative possibilities of advanced design and authoring for interactive websites for desktop or mobile devices with consideration to visual design, usability, audio and video integration, on-going site management, and web accessibility. The subject will cover rich media integration at an advanced level, and the development of rich Internet applications using appropriate development tools for different platforms. The aim of this subject is to explore and push the limits of digital interactivity in design.

## DIM2382 Design for Screen

This subject introduces you to the basics of designing interactive media for the Web. You will learn the basics of Web authoring and other interactive application software. You will also learn how to prepare media for the web, such as graphics, audio, video and other media formats. You will be able to apply these elements together with suitable authoring techniques to enhance the interactivity of Web projects.

## DIM2383 Design for Screen 2

This subject introduces the principles of graphic user interface (GUI) and user experience design. It focuses on the basic rules of visual information organisation and hierarchy, and explores the process of navigation on screen. It also examines the choice of appropriate styles and graphic treatment for the intended audience, and the use of conceptual models for creating appropriate user experience.

## DIM3377 Trends & Research

The subject connects current societal trends with strategy and innovation. Through in-depth research of current topics and the trends specific to design and its related fields, projects briefs are crafted. Once the brief is crafted, ideas and solutions are proposed with the aim to solve problems that are highlighted.

## DIM3378 Industry Studio Project

This subject is industry-driven and will equip you with skills and knowledge of working in small groups with the focus on collaborative practice-based scenarios. You will be exposed to 'live' industry projects in partnership with industry players and partners. While emphasis is placed on the acquisition of sound technical skills in the broadly-defined areas of creative communication. This comprehensive module will also arm you with strategic thinking and analytical skills to thrive in the communication design industry.

## DIM3379 Advertising Strategy

This subject prepares you for the ever-changing advertising landscape. You will explore the emergence of new technology used to engage consumers in a more interactive way. The impact of sociological and economic factors on advertising that cause shifts in consumer behaviour will also be investigated. This knowledge prepares you to strategically communicate a company's product and service to a more discerning consumer.

## DIN1001 Innovation & Entrepreneurship

The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. You will first be introduced to the Design Thinking framework and learn how to develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. In addition, commercial awareness will be imbued in you through the LEAN Startup framework, idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding/crowdsourcing avenues.

## DMP3011 Major Project: PID

This self-initiated project gives you the latitude to put your critical thinking skills to the test as you create and propose design solutions that address new opportunities that stem from anthropological, social, cultural and technological change. The scope is wide and you will be encouraged to identify new niches in product design or propose new user experiences while taking into consideration, insight into human behaviour and new emerging trends.

## DMP3012 Major Project: ADM

The major project is the culmination of the skillsets learned in the entire three-year course. This is an entrepreneurship project, which will cover concept proposal, market research, target customer identification, conceptualisation, solution development, execution and final presentation.

## DMP3021 Major Project: DFT

This subject takes the form of a group project. It involves working on the production of a film that showcases the abilities developed throughout the course, reflecting areas of specialisation within the course. It involves scripting, time management, budgetary plans, casting and the execution of directing, camera, audio and editing skills.

## DMP3022 Major Project: CMD

This subject begins with a self-initiated design project that focuses on a design discipline that is of personal interest or of academic capability. The subject will end with the production of a set of design solutions that is reflective of creative independence, critical conceptual thinking and industry-ready design execution skills. Time management skills, independent responses to critique, pursuit of high-level design competency will be expectations of this subject.

## DMP3023 Major Project: IAD

The project aims to synthesise the collective skills and knowledge acquired in past semesters. The scope includes the inception and exploration of design ideas and concepts within a specific context, the investigative study, analysis and research into pertinent design issues and the resolution of the design problem leading to a comprehensive interior design outcome.

## DMP3024 Major Project: EVD

This subject provides you with the framework to experience a self-initiated and comprehensive project that focuses on the development of an innovative design solution that addresses and resolves environment design issues related to the field of architecture, landscape architecture, and urban design as an integrated design proposal.

## DMV1601 Creative Storytelling

This subject looks at how to transform an idea to a properly structured story in the visual medium. It covers the elements that go into each act of a story. It also covers methods used to create distinctive characters that can engage with an audience.

## DMV1604 Camera & Lighting

This subject provides an introduction to electronic cinematography foundation techniques. Operational basics of camera and lighting equipment, exposure and lighting techniques, and visual composition are covered. The subject will also explain the essential job descriptions and division of labor required of an efficient film crew.

## DMV1659 Introduction to Directing

This subject covers the basic responsibilities of a Director in a film production. Topics covered include the fundamentals of directing techniques and theories such as blocking, working with technical crew and basics of working with casts. These basic directing techniques are crucial even for simple videos such as TV commercials and online content.

## DMV1661 Location Sound

This subject introduces the basic audio recording techniques, studio equipment setup, recording process, digital audio workstation and microphone techniques. It covers the vocabulary, basic studio recording skills, producing and mixing techniques.

## DMV1662 Video Editing

This subject introduces aspects of non-linear video editing with the principles and grammar of editing to be introduced and further developed. It develops the skill-sets of an editor.

## DMV1663 Film Genre

This subject will provide an understanding of the film structure as a medium of communication. It introduces narrative techniques of film and the design of the communicative language of the film form.

## DMV1664 Short Film Project

This module takes the form of a production project that applies and consolidates academic and vocational knowledge to date, culminating in a short video clip. It covers visual narration techniques, pre-production, production and post-production techniques and teamwork.

## DMV2644 Project Pitching

This subject focuses on how to create ideas and "pitch", or market them. It covers basic budgeting and scheduling of documents, and creative documents such as a story outline and treatment, visual references and trailers.

## DMV2645 Project Planning & Management

This subject introduces you to planning and management, which are vital areas of pre-production in the process of film or television making. The subject focuses on the job scopes of an industry film or television programme Producer and Production Manager, consisting of elements such as budgeting, scheduling, location scouting and casting.

## DMV2647 Directing

This subject focuses on the complex craft of directing a drama production. You will learn how to interpret the dramatic possibilities of a screenplay and translate it into a cinematic story.

## DMV2657 Documentary Project

This project covers the various skill-sets such as scriptwriting and project management to the production of a video with non-fiction content. It develops audio visual narrative techniques and integrate the knowledge acquired in other subjects to a video production.

## DMV2660 Studio Production

This module provides an understanding of the organisation and skills involved when producing a video programme in a multi-camera production set-up. It covers directing different programme formats, pre-production and production tasks, simultaneous camera direction and instantaneous vision mixing.

## DMV2662 Production Design in Film & Television

This subject covers Production Design and how it is crucial to the look of a film. It covers breaking down a script to identify its production design elements from sets to costumes, and from visual treatment to props in order to achieve the look and feel and create the mood that is necessary for the film.

## DMV2663 Marketing & Distribution

This subject introduces the basic marketing and distribution methods in the media industry. It covers how to develop a marketing plan and come up with creative ideas on how to sell a film.

## DMV2664 Overview of Non-fiction

This subject gives an overview of scriptwriting for an audio-visual medium and how to design scripts for different video and television programme formats. It also provides an understanding of how to apply scriptwriting principles and skills in order to develop the script for a message or a story.

## DMV2665 Writing for Non-Fiction Film & Television

This subject covers the application of scriptwriting principles and skills to the documentary and non-fiction genres. It develops the integration of interviews and narration to develop an audio-visual script that delivers a strong message or story.

## DMV2667 Audio Post

This subject introduces audio post production, a process of creating the soundtrack for any visual sequence. Both technical and creative aspects will be emphasised for the creation of a professional audio soundtrack.

## DMV2668 Screen Writing

This subject introduces the craft of screen writing. It will provide an understanding of the principles of visual storytelling for the screen and the process of writing a screenplay.

## DMV2669 Short Film Project 2

This subject takes the form of a project that covers the abilities developed over the previous areas of the course to produce a project in a Fictional Narrative Form. It will define a film genre and utilise project planning and management skills to bring the project to completion.

## DMV3661 Advanced Directing

This subject covers advance directing skills such as in-depth methods of working with cast and the skills required to bring out performance. It will highlight the styles of renowned directors' and their different directing techniques and develop abilities in visual storytelling.

## DMV3664 Cinematography

This subject builds on the skills acquired in the "Camera and lighting" subject. It covers advanced lighting theory and techniques, camera placement, camera angles, camera movement and lens choice, as the basis towards telling a good story.

## DMV3665 Advanced Editing

This module offers an in-depth insight into the process of post-production. It covers media management during post, integrating projects across different platforms, creating advanced colour effects and compositing.

## DMV3666 Industry Film Project

This subject takes the form of an industry related project and involves working with a partner to fulfill a creative film brief. It fully utilises the abilities developed over all the previous areas of the course to pitch a video of either the fictional narrative or non-fictional genre.

## DPD1432 Prototyping Workshop

This subject introduces you to a wide variety of basic processing of wood, metal, plastics, composite materials and safe operations with workshop tools and machineries. You will acquire a working knowledge of Workplace Safety & Health (WSH), material specification, their characteristics and properties, prototype techniques, and competency in joining different materials together using the right methods of construction and techniques of casting, surface finishing as well as application of product graphics on 3-D prototypes.

## DPD1433 Evolution of Industrial Design

This subject gives an insight into the evolution of product design and its impact on society. It traces the rich heritage of man's quest for ideas and forms since industrialisation by examining developments in art and the design of product and architecture. It also follows the changes of product design from traditional to mechanical forms and finally examines its present state in the electronic age.

## DPD1434 Concept Visualisation

This subject gives an insight into the evolution of product design and its impact on society. It traces the rich heritage of man's quest for ideas and forms since industrialisation by examining developments in art and the design of product and architecture. It also follows the changes of product design from traditional to mechanical forms and finally examines its present state in the electronic age.

## DPD1435 Form Aesthetics

This subject introduces you to form aesthetics in product design. It centres on methods and principles of form development and manipulation. It also looks into form proportion and the meaning of product form and how it communicates.

## DPD1436 Visual Presentation

This subject develops a range of presentation skills to produce strong and informative design concept presentation. You will experiment with different graphic presentation techniques, media and digital tools to effectively enhance and communicate design ideas.

## DPD1437 Prototyping Lab

This subject introduces you to the fundamentals of vectors, pixels and their properties. The generation and visualisation of high quality 2D digital product / industrial design renderings will be taught using appropriate graphic applications commonly used in the design industry.

The subject aims to equip you the knowledge and skills to generate concepts on computer using appropriate graphic applications to create high quality still image of product concepts, execute and manipulate the desired outcome to best convey your ideas.

## DPD2433 Design for Usability

This subject introduces the basic product design lifecycle process. It will also look into individual's cognitive and physical factors that influence usability of interaction with the products.

## DPD2434 Design for Experience

This subject deepens your knowledge of the design lifecycle. The subject centres on procedures to support design solutions to satisfy the needs and desires of individual users in the context of the environment. It will cover application of design reasoning and rationale necessary to develop a holistic solution.

## DPD2435 Form Aesthetics 2

This subject deepens your knowledge of form aesthetics in product design, focusing on types and methods of product detailing in relationship to form and proportion. It will also look into how product detailing, surface treatment, color and material affects user experience and perception.

## DPD2437 Visual Presentation 2

This subject helps you learn to present and communicate design solution in a visually persuasive and captivating way by deepening your knowledge and ability to combine research process, design principles and art direction with the latest presentation techniques and technology.

## DPD2438 Prototyping Lab

This subject develops your proficiency in generating concepts on screen using the appropriate Computer Aided Industrial Design (CAID) tools. You will develop skills in creating 3D concept visualisation using CAID tools and will be able to execute and manipulate the desired outcome best conveying your ideas within the CAID environment.

## DPD2439 Studio Project

This subject introduces you to basic design vocabulary and the visual language of three-dimensional forms. Emphasis is placed on the realisation of sculptural forms as opposed to a utilitarian one. The core focus lies on the semantics of form and structure and the communication of ideas juxtaposed with issues of historical, social, cultural, functional and practical concern.

## DPD2440 Studio Project 2

This project emphasises the application and use of industrial processes to meet user needs so that manipulative and workshop skills are developed into an understanding of production processes. You will learn entrepreneurship, leadership, batch production, marketing and sale of your designs.

## DPD2441 Material and Fabrication Lab

This subject covers the characteristics of materials available in the market. It also explores each material's unique qualities and its application. The subject teaches you to express design ideas through various fabrication techniques for these materials.

## DPD3433 Prototyping Lab 3

This subject covers fundamental techniques and theories of mechanical and structural engineering. CAID processes, additive manufacturing, prototyping technologies and product simulation with information and communication technology tools for product design will be taught.

## DPD3434 Industry Studio Project

This project provides you with a deeper engagement with industry through 'live' industry briefs. You are expected to utilise skills layered in earlier project modules to explore complex design challenges and offer appropriate solutions. Through this project-driven module, you will delve deeper into design research methodology, to practice and hone your skills in service design blueprint techniques, problem identification/opportunity analysis and problem solving.

## DPD3435 Design for Innovation

The subject highlights the influence that science, technology, interface and interaction design has on modern product design. This includes the importance and value of product innovation processes including ways to enhance existing business services through the design of new product eco-systems.

## DPD3436 Studio Project 3

Layering skills learned in early studio project modules, this subject takes a deeper look at design methodology, including research and analysis, problem identification and problem solving. The focus rests on identifying new opportunities for a product ecosystem and product innovation. This includes the technical skillsets to translate sketches into digital rendering and general assembly drawings with the aid of maquettes and mock ups. There is emphasis on human-centric design approaches, including the consideration of ergonomic and user interaction. Technical constraints, functionality, practicality and product semantics and aesthetics are emphasised and explored which ends in the production of highly finished three-dimensional presentation models to communicate design intent.

## DPS1031 Design Fundamentals

The subject introduces you to art and design fundamentals, aesthetic awareness and cultural appreciation. It will develop an understanding for the art and design processes, and enable you to reflect and see the world from a designer's perspective. Through this subject, you will discover how to express yourself visually and with confidence in areas of art and design.

## DPS1032 Collaborative Design

The subject will cover the necessary ability to research, analyse and organise information relating to societal issues in a collaborative manner. It will introduce the various collaborative strategies, design frameworks and integrate critical thinking. It will also cover innovative and conceptual approaches in the context of design.

## DPS2022 Brand Strategies

This subject introduces you to the understanding of a brand and the role it plays within a business and its influence on consumers. You will learn definitions and terminology to grasp meanings of a brand which then lead on to form a strategic platform to begin the visual expression and visual identity. This subject forms the deeper theoretical knowledge to enhance the designing of brand touch points.

## DRH1701 Architectural Drawing

The subject covers the fundamental concepts and construction of geometric drawings, orthographic projections and perspective drawings to communicate design ideas.

## DRH2719 Construction & Detailing

This subject covers construction elements such as walls, floors, roofs and stairways with a comparison of structural and non-structural functions, to provide you with an understanding of the constructional framework of the building and the parameters within which an interior space can be altered and manipulated.

## DRH2721 Interior Building Systems

The subject covers the knowledge and application of building systems that contribute to the comfort, safety and accessibility of users of an interior environment.

## DSI3024 Student Internship Programme (ADM)

This is a graded subject that prepares you for the world of work. The internship period is 16 weeks long. You will learn to identify prospective companies, prepare your portfolio, application letter and resume, and attend job interviews. You may have the opportunity to work with firms locally or overseas. The internship will expose you to actual design industrial or business environments, giving you a realistic perspective of working life. You will work with commercially "live" projects and demonstrate the ability to transit from student to employee. You will journal, record and evaluate your progress and learning with your supervisors and your lecturers.

## DSI3026 Student Internship Programme (DFT)

This is a graded subject that prepares you for the world of work. The internship period is 16 weeks long. You will learn to identify prospective companies, prepare your portfolio, application letter and resume, and attend job interviews. You may have the opportunity to work with firms locally or overseas. The internship will expose you to actual design industrial or business environments, giving you a realistic perspective of working life. You will work with commercially "live" projects and demonstrate the ability to transit from student to employee. You will journal, record and evaluate your progress and learning with your supervisors and your lecturers.

## DSI3027 Student Internship Programme (EVD)

This is a graded subject that prepares you for the world of work. The internship period is 16 weeks long. You will learn to identify prospective companies, prepare your portfolio, application letter and resume, and attend job interviews. You may have the opportunity to work with firms locally or overseas. The internship will expose you to actual design industrial or business environments, giving you a realistic perspective of working life. You will work with commercially “live” projects and demonstrate the ability to transit from student to employee. You will journal, record and evaluate your progress and learning with your supervisors and your lecturers.

## DSI3029 Student Internship Programme (PID)

This is a graded subject that prepares you for the world of work. The internship period is 16 weeks long. You will learn to identify prospective companies, prepare your portfolio, application letter and resume, and attend job interviews. You may have the opportunity to work with firms locally or overseas. The internship will expose you to actual design industrial or business environments, giving you a realistic perspective of working life. You will work with commercially “live” projects and demonstrate the ability to transit from student to employee. You will journal, record and evaluate your progress and learning with your supervisors and your lecturers.

## DSI3033 Student Internship Programme (CMD)

This is a graded subject that prepares you for the world of work. The internship period is 12 weeks long. You will learn to identify prospective companies, prepare your portfolio, application letter and resume, and attend job interviews. You may have the opportunity to work with firms locally or overseas. The internship will expose you to actual design industrial or business environments, giving you a realistic perspective of working life. You will work with commercially “live” projects and demonstrate the ability to transit from student to employee. You will journal, record and evaluate your progress and learning with your supervisors and your lecturers.

## DSI3034 Student Internship Programme (IAD)

This is a graded subject that prepares you for the world of work. The internship period is 12 weeks long. You will learn to identify prospective companies, prepare your portfolio, application letter and resume, and attend job interviews. You may have the opportunity to work with firms locally or overseas. The internship will expose you to actual design industrial or business environments, giving you a realistic perspective of working life. You will work with commercially “live” projects and demonstrate the ability to transit from student to employee. You will journal, record and evaluate your progress and learning with your supervisors and your lecturers.

## DVC1506 Typography

This subject introduces the principles of type and using type as an expressive communication tool. It allows you to explore issues concerning type, such as form and meaning, hierarchy of information, legibility and readability, structure and composition, and the design of type. You will learn to exploit type with colour, creative integration of type and images, and typographic layout in print communication.

## DVC1509 Digital Essentials

Computer software knowledge is integral to the creative process in the design industry. This subject teaches you the fundamental knowledge and skills to carry out almost all forms of design solutions on the computer. From manipulating photos, illustrating your own graphics, to designing your very first layout — you will learn the digital tools that are essential in creating your own designs.

## DVC1542 Photography

This subject teaches the fundamentals of using the camera and the principles of photography. It provides you with the necessary theoretical knowledge and practical skills required for capturing and managing digital images using cameras with manual-mode capability. The topics covered will allow you to digitally capture images with purpose, control and creativity.

## DVC1550 History of Graphic Design

This subject gives an insight into the evolution of graphic design and its impact on society. It traces the rich heritage of man’s quest for ideas and forms in visual graphics by examining the developments in writing, printing, typography and design. It also follows the changes of graphic design from traditional to mechanical forms and finally examines its present state in the electronic age.

## DVC1564 Graphic Stylisation & Techniques

This subject teaches you to create stylised visual representations that can be frequently found in many forms of graphic design. Through the investigation of art and design styles and movements, you will begin to see the different style techniques that can be used to convey concepts and messages, and are the beginnings of creating graphics for communication.

## DVC2514 Advertising

This subject anticipates the challenges and influences posed by the mass media on society, and to impart the thinking, methods, skills and processes. It also extends skills and new insights beyond the influence of the interactive electronic age. A firm foundation is provided upon which a more advanced and progressive knowledge and skills in advertising can be built. It covers the importance of target marketing to ensure effective advertising for a consumer product or a service industry. Through a series of assignments, you will explore and discuss the appropriateness and effectiveness of visual images and messages in the creation of persuasive advertisements.

## DVC2572 Tactile Design

You will explore beyond common reproduction techniques when crafting your final design solution. New techniques may include silk-screen printing, lino/ woodblock printing, etc. The tactility of materials chosen for print will also be explored and experimented to allow for more innovative usage of materials in design.

## DVC2573 Kinetic Graphics

This subject emphasises on the relationship between design principles and animation fundamentals, as well as focusing on the systems, structure, and synthesis of text and image for time-based media.

## DVC2575 Design for Print

This subject focuses on advanced page layout and design techniques in publications and its production requirements. You will learn to produce more complex publications using advanced page layout software skills, as well as advanced design techniques.

## DVC2576 Integrated Campaign

This subject covers historical aspects of the advertising and graphic design fields, as well as addressing communication strategies including the effective use of metaphors, iconography, idioms, allegories, clichés and methodologies. Problem-solving and conceptual thinking are emphasised. The subject also provides an introduction to the craft of advertising copywriting and gives you a basic understanding of the copywriting process as it applies to advertising. Assignments given are to reinforce/teach the importance of presenting information clearly, provocatively and memorably.

## DVC3536 Corporate Identity

This subject focuses on corporate identity and its importance in today's business. It provides you with the opportunity to learn the importance of maintaining corporate image and philosophy by creating effective corporate identity manuals and guidelines.

## DVC3571 Conceptual Imaging

The subject covers an alternative understanding and interpretation through imagery derived as a result from using aids such as poems, stories, music, philosophies, paintings or any other initial form. It also covers exploration of non-conventional forms in visual design to produce images that are expressive and meditative.

## DVC3582 Brand Systems

This module introduces the fundamentals of a brand, a basic understanding of a brand strategy leading to a visual language and design devices that will overall express the brand's vision, values and personality. You will learn to design a system of visual devices that can organically and flexibly be applied across various formats and mediums.

## GCC1001 Current Issues & Critical Thinking

This subject presents you with a panoramic view of current issues that have an impact on Singapore, which may have long term and life-changing implications for our nation. You will learn to be able to think critically about issues affecting Singapore, support your views with the relevant data, and discover your individual voice, confidence and courage to face new challenges head on.

## LEA1011/1012/1013 Leadership: Essential Attributes & Practice (LEAP)

LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.

## LSW1002 Sports & Wellness

This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.

## MCR1001/MCR1002/MCR1003 Career Readiness

This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. It aims to cultivate the necessary attitudes, skills and knowledge to conduct yourself professionally, adapt and respond to the changing job market environment.

## TGL1001 Guided Learning

This is a subject where you will be free to pursue an area of interest through a self-directed approach, guided by staff. You will be expected to demonstrate a sense of curiosity for learning, initiate an opportunity to acquire knowledge and skills, and reflect on your learning journey throughout the subject.



# School of Engineering

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This School is the place Where the Future Happens — where opportunities are provided for you to realise your ambitions. Always at the forefront of technology, we emphasise innovation, creativity, a practical approach to solving problems, and hands-on training.

We offer 13 exciting diploma courses and 3 special programmes — all of which provide you with a broad-based curriculum that opens the doors to flexible career opportunities in Singapore's new knowledge-based economy. In addition, the electives/options/specialisations offered in our courses have been carefully selected based on the latest industry trends, and they have been blended into the respective core diploma curriculum. This ensures that you are well prepared to start working in the industry, while giving you a strong foundation for university studies.

# Centres of Excellence

With the most up-to-date facilities and equipment, coupled with highly effective teaching methods, the School of Engineering is in the position to ensure that you get a wholesome education that prepares you to meet future economic challenges.

Our strength lies in our ability to be forward-looking to ensure that we remain at the cutting edge of technology. We have six Centres of Excellence which undertake R&D work in collaboration with the industry, so as to further our expertise in specialised technological areas. These Centres help to enhance the professional and academic capability of our staff and students.

## Biomedical Engineering Research Centre

This interdisciplinary research centre provides a platform for clinicians, chemists, biochemists, electrical and electronic engineers, mechanical and mechatronics engineers, software engineers and industrial designers to interact and invent cost-effective medical devices and solutions. It currently focuses on the development of portable and wearable peritoneal dialysis devices and home haemodialysis devices for treating end-stage renal disease (ESRD) patients. The Centre also aims to provide the Medical Technology (MedTech) industry with the technological knowhow for commercialisation as well as the expertise in biomedical regulatory compliance.

## Clean Energy Research Centre

This Centre aims to provide research & development capability and technological know-how for Singapore's clean energy industry, as well as to offer the industry-relevant infrastructure to support the School's diploma programmes, particularly the Diplomas in Clean Energy, Electronics, Green Building & Sustainability, and Mechatronics. This Centre works on energy generation & storage technologies, power and energy management system & analytics. The objective is to proliferate and develop these technologies for applied research & development, training, industry collaborations and commercialisation. Backed by a team of scientists and engineers with vast experience in chemical, electrical, electronic and mechanical engineering, the Centre offers various facilities including chemistry labs, fuel cell test-stations, various gas supply (including hydrogen), power electronics and mechanical prototyping labs & workshops to conduct applied and industry-relevant research & development.

## Interactive Digital Centre Asia (IDC Asia)

This Centre aims to conduct applied research and development in cross-disciplinary issues related to Interactive Digital Media (IDM) that will contribute to Singapore's Smart Nation initiative by harnessing technology to improve the lives of citizens, create more opportunities, and support stronger communities. The technologies include mobile apps, computer applications using Augmented Reality (AR) and Virtual Reality (VR), engineering analytics, Internet of Things (IoT) as well as innovative gadgets and interactive media. Relevant IDM projects undertaken by the Centre include 3D Simulation and Interactive Learning (3DSaIL), ICT & e-Learning, IoT@Home (a Smart Enabled Home), Real-Time Interactive AR/VR for Collaborative Learning, as well as pilots and trials for the Smart Connected Jurong Lake District.

## Microelectronics Centre

Microelectronics is at the core of the modern industry and has penetrated into almost every aspect of modern living. This Centre continuously grows its R&D capabilities on innovative micro-devices while focusing on the main areas such as biosensors, microfluidic chips, light-emitting diode, surface acoustic wave devices, and other state-of-the-art microsensors and systems. It brings together scientists and engineers to pursue translational research and develop practical applications for commercialisation. It also supports staff capability development as well as teaching & learning activities by providing the necessary platforms and expertise. The Centre has secured various competitive R&D grants and established strategic partnerships with companies and research institutes, and has strong capabilities in developing microtechnology-based devices from concept to field-deployable prototype.

## Robotics & Automation Centre

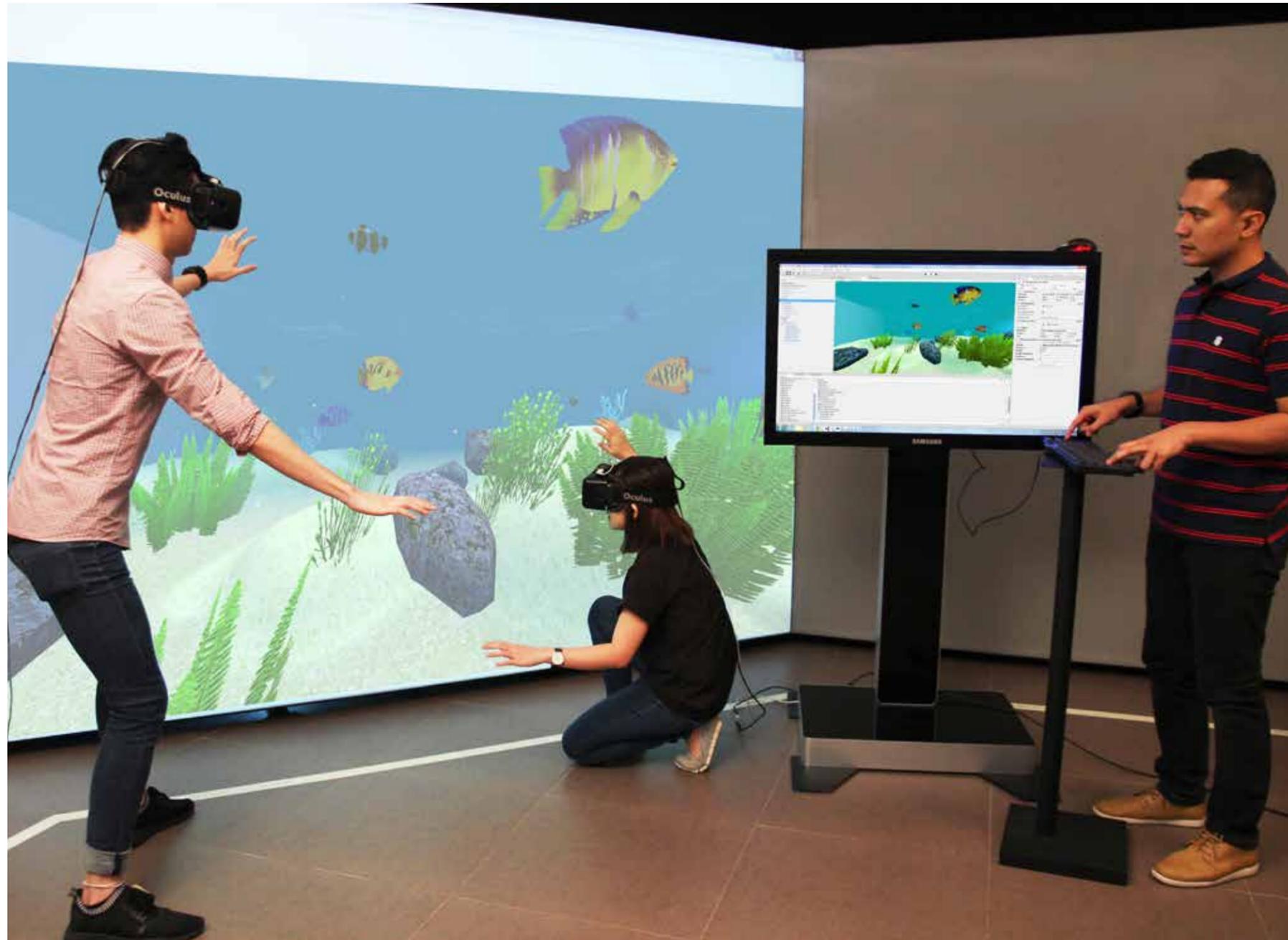
This Centre strives to foster, develop and promote the latest technologies through innovation, applied research, capability development and application in robotics and automation that are relevant to the industry's needs. The core technological areas include wireless sensor network, embedded intelligent system, robotic navigation, path planning, obstacle navigation, motion control for research robots, motion control for automation, machine vision, process control and simulation.

## Temasek Aviation Academy

The Temasek Aviation Academy (TAA) is one of the largest aviation/aerospace facilities in Singapore. It has specialised training labs for Airport & Airline Operations, Air Traffic Control, Pilot and Licensed Aircraft Engineer Training, and boasts of the latest state-of-the-art aerospace and aviation training equipment including full-flight simulators for training pilots and an aircraft hangar with a ground operational Hawker 700 business jet.

The Aviation Research Centre (ARC) is the latest addition in TAA. It conducts applied research, testing and system optimisation in areas such as unmanned systems, aerospace MRO and airport systems. It is well-equipped with quality facilities such as developmental labs, indoor and outdoor UAV flying enclosures, wind tunnels, computational fluid dynamics lab, virtual/augmented reality, flight simulators and composite materials labs. Working with strategic partners, ARC innovates with a future-oriented approach in developing new capabilities for deployment and training for the industry.

# 3D Interactive Media Technology



You must have come across 3D animation, graphics or simulation used in educational materials, advertising, websites, presentations, computer games, and of course, in movies. These are all interactive digital media – the growth of which is becoming virtually unstoppable today.

Under Singapore's Media 21 plan, the government aims to transform the country into a global media city that develops and trains professionals in such 3D interactive applications. This very exciting course will enable you to tap into this growing market for Interactive Digital Media (IDM) as more companies start to deploy state-of-the-art technology to create 3D graphics to market their products or to design and simulate real-life effects in virtual training for maintenance and manufacturing.

Companies in the aerospace, medical and automotive industries, as well as defence weapon manufacturers and architectural design firms are using such 3D applications to conceptualise futuristic devices that do not exist currently. Schools and educational institutions are also using 3D modelling and animation tools to teach and illustrate complex concepts. In this course, you will be equipped with a solid foundation in not just engineering, but also digital media design concepts, and interactive 3D visualisation and simulation for the IDM industry.



This is a unique course which combines engineering with 3D Interactive Digital Media (IDM) technologies. It shapes a new breed of graduates to meet the expected strong demand for such skills and know-how in the key sectors of Singapore's economy such as engineering, healthcare and transportation.

Vincent Ong  
Managing Director,  
IM Innovations Pte Ltd  
Managing Director,  
MAXON Competence Centre

## Career Opportunities

You will be able to find excellent employment opportunities in the IDM sector, involving 3D application development, 3D content creation, as well as 3D modelling and animation. Singapore has been tapping into the tremendous potential of IDM to enhance its competitive edge, and this will continue to create many new and exciting job opportunities for you. You can choose to be involved in frontline sales and marketing, or be a 3D content-developer or trainer in the exciting IDM industry.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 87 credit units
Total Credit Units Completed	: min 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from mild or severe colour vision deficiency or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DNG1342	Drawing Essentials	1	3
DNG1344	3D Art Fundamentals	1	3
DNG1345	Ideation	1	3
EDM1001	Modelling & Animation	1	5
EDM1002	Fundamentals of Digital Media Processing	1	4
EDR1003	Engineering Drawing	1	4
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
DNG2371	Interface Design	2	3
EBM2004	Project Management	2	4
EDM2004	Advanced Digital Animation & Special Effects	2	4
EDM2005	Interactive Digital Media Project	2	6
EDM2007	Fundamental 3D Interactive Digital Media	2	5
EDM3002	3D Real-time Visualisation	3	4
EDM3003	Interactive 3D Display System	3	4
EED3013	Rapid Prototyping & Model Making	3	4
EMP3002	Major Project	3	8
ESE3006	ASP .NET Web Programming	3	4
ESE3010	Database Management System & Design	3	4

## DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2

# Aerospace Electronics



Step into an aircraft cockpit and you will see colourful lights, state-of-the-art instruments, bright LCD displays and dual steering systems for flight control navigation. Want to know how these systems work together to control the aircraft thousands of metres above sea level? This course will provide you with the answers, and set you on the path towards an exciting career in the aviation industry!

In this course, you will learn about avionic systems, including aircraft navigation and flight control systems, and you will also be equipped with knowledge and skills of the SAR-66 Aircraft Maintenance Licence (AML) Category B2 syllabus.

You will get to use our fully-equipped TP-Lufthansa Technical Training (LTT) aerospace training centre conveniently located on campus, and be trained by expert instructors certified by LTT, Germany. In addition, our Temasek Aviation Academy houses flight simulators and a full-sized aircraft hangar complete with a private jet, will add an authentic dimension to your learning.

TP is the first polytechnic to be certified by the Civil Aviation Authority of Singapore (CAAS) as a SAR-147 Approved Maintenance Training Organisation (AMTO). This means your diploma will be more widely recognised by employers, and your AML apprenticeship

duration after graduating from TP will also be significantly shortened, allowing you to become a Licensed Aircraft Engineer (LAE) up to 10 months sooner.

If you aspire to be a pilot, you can also fulfil your dream by taking flying lessons as part of your Student Internship Programme in your final semester of study, to get that coveted Private Pilot Licence (PPL).



Singapore's aerospace industry has been growing rapidly and customers' demands have become more sophisticated. We at ST Aerospace believe that these new challenges can only be met by a team of highly skilled and innovative aerospace professionals, and we believe that graduates from this course will be ready to fulfil the industry's needs.

Koh Chin Seng  
Vice President, Human Resource,  
ST Aerospace  
Singapore-ASEAN

## Career Opportunities

Singapore is today the most comprehensive aerospace maintenance, repair and overhaul (MRO) hub in Asia, accounting for a quarter of the region's MRO output. Our Aerospace industry is currently worth about S\$9 billion annually, and employs about 20,000 workers spread across more than 100 local and international companies carrying out MRO in Singapore.

It is projected that approximately one million additional personnel – including 460,000 new commercial airline pilots and 601,000 highly skilled maintenance personnel – will be needed worldwide over the next few decades, thereby giving you outstanding career prospects.

You will be highly sought-after as an aircraft maintenance engineer, aircraft electrical system specialist, avionics design and development engineer, avionics system specialist or avionics test engineer, in the fields of avionics testing and measurement, the design, development, manufacturing and technical sales of aircraft systems and components, as well as aerospace engineering support and services.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 94 credit units
Total Credit Units Completed	: 130 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from mild or severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss, severe vision impairment or any physical impairment, or be physically dependent on mobility equipment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EAE1002	Aircraft Electrical Fundamentals	1	4
EAE1004	Fundamentals of Aeronautical Science	1	5
EAE1006	Avionic Systems	1	4
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EAE2002	Aviation Legislation & Human Factors	2	4
EAE2003	Aircraft Electronics & Servomechanisms	2	4
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EAE3009	Basic Aerodynamics	3	3
EAE3018	Aircraft Digital Systems	3	5
EAE3020	Aerospace Maintenance Practices	3	16

## DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Aerospace Engineering



Every time we hear an aircraft roaring above us, we look up to the sky and marvel at how these huge machines overcome gravity to stay airborne, how they are made, and how some of them can even fly faster than the speed of sound! In this course, we unravel these mysteries for you.

In this course, you will learn about aircraft flight, aircraft design, airframe structure, engine systems, and manufacturing of aircraft systems, and you will also be equipped with knowledge and skills of the SAR-66 Aircraft Maintenance Licence (AML) Category B1 syllabus.

You will get to use our fully-equipped TP-Lufthansa Technical Training (LTT) aerospace training centre conveniently located on campus, and be trained by expert instructors certified by LTT, Germany. Our new West Wing building housing flight simulators and a full-sized aircraft hangar complete with a private jet, will add an authentic dimension to your learning.

TP is the first polytechnic to be certified by the Civil Aviation Authority of Singapore (CAAS) as a SAR-147 Approved Maintenance Training Organisation (AMTO). This means your diploma will be more widely recognised by employers, and your AML apprenticeship duration after graduating from TP will also be significantly shortened, allowing you to

become a Licensed Aircraft Engineer (LAE) up to 10 months sooner.

If you aspire to be a pilot, you can also fulfil your dream by taking flying lessons as part of your Student Internship Programme in your final semester of study, to get that coveted Private Pilot Licence (PPL).



This course has shown leadership by hiring staff fresh from the industry, and partnering recognised world-class training institutions such as Lufthansa Technical Training (LTT) to inject the latest, the best, and the most realistic practices from the aviation industry into its curriculum. The knowledge that you receive as students will definitely be both current and relevant to your future work environment.

Roberto Kobeh Gonzalez  
President  
Council of the International Civil  
Aviation Organisation (ICAO)

## Career Opportunities

The aerospace industry in Singapore has been growing at an average rate of about 12% annually, and today our country is the regional leader in aerospace maintenance, repair and overhaul (MRO), manufacturing and research & development (R&D).

Our Aerospace industry is currently worth about S\$9 billion annually, and employs about 20,000 workers spread across more than 100 local and international companies carrying out MRO in Singapore. This rapid growth of the aerospace industry will create a strong demand for skilled aerospace professionals in the next few decades, so you will be highly sought-after as an aircraft maintenance engineer, structural or composites specialist, engine or power plant technologist, aerospace component design engineer, or an aeromechanical systems specialist. Your fundamental engineering training will also equip you to further your aspirations in future local and overseas degree programmes.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 97 credit units
Total Credit Units Completed	: min 133 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from mild or severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss, severe vision impairment or any physical impairment, or be physically dependent on mobility equipment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EAE1002	Aircraft Electrical Fundamentals	1	4
EAE1008	Aircraft Electronics & Digital Systems	1	4
EDR1003	Engineering Drawing	1	4
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
EME1002	Statics & Strength of Materials	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EAE2002	Aviation Legislation & Human Factors	2	4
EED2010	Aerospace Design Project	2	4
EMA2003	Engineering Mathematics 3	2	4
EME2008	Principles of Dynamics	2	5
EME2009	Thermodynamics	2	3
EME2010	Fluid Mechanics	2	3
EAE3008	Gas Turbine Engine	3	4
EAE3009	Basic Aerodynamics	3	3
EAE3020	Aerospace Maintenance Practices	3	16

### DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Aviation Management & Services



Over one billion people and 40 percent of the world's manufactured exports are transported by air each year, making the aviation business one of the key drivers of world trade. According to the International Air Transport Association (IATA), the aviation industry's contribution to Singapore's gross domestic product (GDP) would double to about US\$65 billion (S\$88 billion) by the year 2035, spurred by increased air travel.

The exponential growth of the aviation industry has created a high demand for specialised and highly-skilled aviation professionals to operate and manage the existing and new aviation services, facilities and infrastructures, such as Changi Airport's fourth and fifth passenger terminals, the Seletar Aerospace Park, and new state of the art aircraft such as the Airbus A350XWB and Boeing 787 Dreamliner.

This course is the first Aviation Management programme in Asia. You will learn a broad range of specialised aviation management skills and business knowledge. From understanding how to manage a world class airport to running the best airline in the world, we will prepare you for a career in the exciting aviation industry. You will also get a head start in the industry through a 6-month industrial attachment in various departments of the Civil Aviation Authority of Singapore (CAAS), renowned airlines or

airport ground handling agents, or by doing ground breaking research with institutions of higher education. There are also overseas internship opportunities with regional airports and aviation companies.

No aviation programme is complete without experiencing flight! You could gain in-flight experience as a cabin crew with a Singapore-based airline as part of your diploma internship, or choose to take the first step towards being a pilot by taking our Aeronautical Science Option, in which you will go through flying and theoretical lessons required to obtain a Private Pilot's Licence (PPL). Selected foundational subjects in this Option will also give you an advantage when you pursue the Commercial Pilot Licence (CPL) or Air Transport Pilot Licence (ATPL) in future.



I remain very impressed with your aviation training programmes, the passion of your students and staff, and your innovative efforts to meet the increasing demands of the aviation industry, for a challenging present and a bright future.

Roberto Kobeh Gonzalez  
Fourth President  
Council of the International Civil  
Aviation Organisation (ICAO)

## Career Opportunities

According to IATA, the number of aviation-related jobs in Singapore is expected to double over the next 20 years, spurred by increased air travel. Hence, you can look forward to exciting and rewarding careers with airport operators, airlines, aerospace companies, aviation consulting and investment companies, civil aviation authorities, as well as ground handling and logistics companies. Your job scope would include operations and management, sales and marketing, customer service, flight operations, air traffic control, and aviation commercial development. You will also have the option to further your studies in universities in Singapore and abroad, with as much as two years' credit exemption or advanced standing. Our diploma is well-recognised by many top universities in Australia, New Zealand, UK and USA and has built strong collaborative relationships with them.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 75 credit units
Diploma Option Subjects	: 12 credit units
Total Credit Units Completed	: min 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EAD1001	Introduction to Civil Aviation	1	4
EAL1003	Airline Operations	1	4
EAL1004	Principles of Aeronautical Science	1	4
EAM1001	Airport Operations & Management	1	4
EBZ1004	Business Fundamentals	1	4
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
ESZ1002	Quantitative Methods	1	4
EAL2005	Airline Management	2	4
EAM2007	Aviation Safety & Security	2	4
EAT2006	Airport Systems	2	4
EAT2007	Airfield Systems	2	4
EBM2004	Project Management	2	4
EBZ2006	Service Quality & Management	2	4
EBM3004	Business Continuity Management	3	4
EMP3002	Major Project	3	8

## DIPLOMA SUBJECTS – DIPLOMA OPTIONS

You will take one of the following options in your final year, and will be streamed based on your interests, a selection process and a test.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Aeronautical Science Option</u>			
EAL3005	Air Navigation	3	4
EAL3006	Flight Planning	3	4
EAM3003	Meteorological Studies	3	4
<u>Airport &amp; Airline Option</u>			
EAL3004	Management of Air Cargo	3	4
EAM3002	Airport Administration	3	4
EAT3001	Air Traffic Management	3	4

# Biomedical Engineering



The development of medical devices, from a simple hearing aid to an X-ray machine; the search for a cure for human diseases; or even the very pills that you pop into your mouth – these are all part of the biomedical life sciences, which are now seeing a boom in related industries worldwide.

This course involves the application of engineering skills to the biomedical sciences and healthcare industry. You will learn the necessary biological techniques and apply them in the field of biomedical engineering. Under the Economic Development Board's plan, the field of life sciences is slated to be one of the four key pillars of Singapore's economy, besides chemicals, electronics and engineering.

Singapore is on its way to becoming a global centre for medical research and advanced patient care in specialised fields such as oncology, cardiology, ophthalmology, neurology and rehabilitation. It also aims to be a regional hub for a wide spectrum of healthcare services such as integrated healthcare services, hospital management, laboratory services, healthcare consulting, pharmaceutical research and clinical trials.

Companies dealing in medical devices and drugs will find it attractive to undertake the development and manufacturing of new drugs and medical products in

Singapore. In fact, numerous prominent overseas biomedical companies have set up base in Singapore, providing excellent job opportunities and career advancement prospects for holders of this diploma.



As the medical and healthcare solutions industry continues to globalise and advance at a rapid pace, biomedical professionals today face increasing demands and challenges. Students of this course are armed with sound fundamental knowledge, giving them a mastery of engineering skills so as to empower them to excel in their future careers while meeting the rigorous demands of this industry.

Hema Venkataraman  
Director  
Infinity Biomed Solutions Pte Ltd,  
Singapore

## Career Opportunities

You will be able to find employment in companies (MNCs, SMEs or public companies) dealing in the life sciences and electronics, as well as government agencies, health care institutions and hospitals. There are excellent career prospects in life science research centres, providing support in medical research activities, the maintenance of equipment, and specialist procedures. You can also be employed in pharmaceutical manufacturing firms, dealing with process control and quality control, or in hospitals, handling the operations and maintenance of specialised medical equipment. Some of our graduates are in wholesale and retail firms, doing the marketing and sales of medical devices and equipment, or providing after sales services such as commissioning, maintenance and training.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 83 credit units
Diploma Elective Subjects	: min 7 credit units
Total Credit Units Completed	: min 126 credit units

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/ Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from mild or severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

#### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBS1004	Human Anatomy & Physiology	1	4
EED1001	Electronic Prototyping	1	3
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1003	Chemistry	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem-solving	1	4
ESE1007	Engineering Analytics	1	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EMD2001	Medical Electronics	2	4
EMD2002	Medical Devices	2	4
EMF2003	Medical Device Manufacturing Practices	2	3
EBI3008	Medical Imaging & Informatics	3	4
EMP3002	Major Project	3	8

#### DIPLOMA SUBJECTS – ELECTIVES

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBS2004	Medical Biochemistry	2	4
EBS2005	Clinical Laboratory Equipment	2	3
EBI3004	Audiometry & Hearing Devices	3	4
EED3014	Advanced Skills Practices	3	8

#### DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma electives, will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Business Process & Systems Engineering



In today's business environment, companies' operations have become more challenging and complex. In addition to performing the traditional role of managing an enterprise, business leaders now require the skills to continuously refine business processes in order to overcome vital challenges. This course combines engineering disciplines with business management principles, producing graduates who are highly sought after by multinational corporations as well as small and medium enterprises.

As technology advances and Singapore strives to be a world-class service centre and logistics hub, the 21st century will see an increasing demand for tech-savvy professionals with multi-disciplinary knowledge and skills who are able to offer solutions to business issues and problems, so as to add value to their employers.

The introduction of business concepts and principles into a core of engineering fundamentals in this course will enable holders of this diploma to easily find their niche in an extremely wide variety of industries, including the manufacturing, logistics and service sectors in Singapore.

There are two main areas in this course: (i) Business Analytics, which concerns the systematic investigation, prediction and prescription of business performance in order to provide insights for future planning, known as forward business management; and (ii) Systems Engineering, which deals with the management, improvement and optimisation of business processes using a systems thinking approach so as to enhance business productivity and profits.



The subject areas covered in this course, including process optimisation, marketing strategies and business enhancement, are very relevant to the industry and will optimally equip students to meet the challenges of today's new business environment.

Sim Sin Sin  
CEO  
Secret Recipe Café Pte Ltd

## Career Opportunities

Armed with the knowledge of fundamental business principles, business analytics, business process improvement and systems engineering skills, you will have the multi-disciplinary advantage to seek lucrative career opportunities in a variety of industries such as manufacturing, logistics and services which include healthcare operations, finance, retail, customer service, as well as sales and marketing. You can look forward to jobs as a business analyst, customer relationship executive, market researcher, logistics and supply chain executive, product marketing executive, quality assurance and control specialist, operations executive, and productivity and management systems executive.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 87 credit units
Total Credit Units Completed	: min 123 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBZ1001	Business Fundamentals	1	4
EBZ1002	Principles of Economics	1	4
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
EPZ1001	Introduction to Processes & Systems	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
ESZ1001	Systems Concepts & Tools	1	4
ESZ1002	Quantitative Methods	1	4
EBM2004	Project Management	2	4
EBZ2002	Marketing Intelligence	2	4
EBZ2003	Engineering Economy	2	4
EBZ2006	Service Quality & Management	2	4
EQM2001	Process Management & Innovation	2	4
ESZ2001	Decision Analysis	2	4
ESZ2002	Process Optimisation & Improvement	2	4
EMF3002	Manufacturing Logistics & Simulation	3	4
EMP3002	Major Project	3	8
EPZ3001	Customer Relationship Management	3	4
ESZ3001	Supply Chain Management	3	4
ESZ3002	Systems Modelling & Simulation	3	4

# Clean Energy



Green businesses and eco-industries have increasingly become the important economic pillars of Singapore. Clean Energy is an important part of these green industries, which are expected to create 20,000 new jobs by 2020. Therefore, the number of eco-product designers, green entrepreneurs and energy managers will continue to grow rapidly, giving you excellent future prospects.

This course will equip you with the knowledge and skills in four key areas, namely, renewable energy technologies, green electronics and automation, smart and efficient power systems and green transportation.

You will also be able to sharpen your skills with a wide range of exciting state-of-the-art learning facilities in our campus, such as our Smart Energy Training Systems, our Clean Energy Research Centre, and a solar “LIVE” Laboratory. These will not only enhance your learning experiences, but also ensure that you are competent and ready to work in the industry upon graduation.

With your diploma, you will also be eligible to apply for the Associate Singapore Certified Energy Manager (ASCEM) accreditation programme, an industry-recognised certification that will give you a career advantage.

In this course, you will get to take part in a wide range of vibrant and enriching activities such as leadership camps, the Youth Energy Showcase, Energy Connect seminars, sports activities, and social or community events. You will also have opportunities to gain global exposure through internship programmes at overseas institutions such as the University of New South Wales in Australia and Southwest Jiaotong University in China.

If you are passionate about the environment, you can participate in meaningful Overseas Community Projects in countries such as Thailand, Laos and Cambodia where you get to apply what you have learnt about solar technology, to design and install solar-powered LED lighting to light up the lives of locals there.



From a small base today, the clean energy sector here is growing rapidly, thanks to several government initiatives and the declining cost of technology. We anticipate significant demand for qualified personnel in the clean energy industry over the next few decades.

Christophe Inglin  
 Managing Director  
 Energetix Pte Ltd  
 Deputy Chairman  
 Sustainable Energy Association of Singapore (SEAS)

## Career Opportunities

As part of Singapore’s objective of becoming a Smart Nation, the government has implemented a comprehensive plan to transform our country into a global clean energy hub. Some of the measures include the “SolarNova Programme” which involves a project to install solar panels on the roofs of 5,500 HDB blocks by 2020, the “Green Mark Programme” to “green” 80 percent of Singapore’s buildings by 2030, and the enactment of Energy Conservation Acts by NEA from 2013 to regulate sustainable energy management.

All these mean that you will have bright prospects as there will be a great demand for clean energy professionals. You can find exciting and fulfilling careers in the solar photovoltaic, air conditioning and refrigeration, energy services, building & construction, electrical power, green manufacturing and public service sectors as a project engineer, design engineer, facility engineer, system engineer, R&D engineer, industrial engineer, process engineer, equipment engineer, public service officer (energy planning, green transportation, environmental management), energy auditor, energy consultant, associate energy manager or even a green entrepreneur.

If you like smart technologies and managing future green cities, and care about saving Gaia, you are the right person to join this course!

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 93 credit units
Total Credit Units Completed	: min 129 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED1001	Electronic Prototyping	1	3
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EER1001	Electrical Services for Facilities	1	4
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
ECE2007	Fuel Cell & Energy Storage Systems	2	4
ECE2008	Solar Cell & System	2	4
EER2001	Electrical Systems & Power Distribution	2	4
EGB2002	Air Conditioning & Mechanical Ventilation	2	4
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EBM3005	Energy Management & Audit	3	4
ECE3005	Industrial Sustainability & Energy Efficiency	3	3
ECT3004	Efficient Drive & Control Systems	3	3
EER3002	Electrical Diagnostics & System Integration	3	3
EMP3002	Major Project	3	8

## DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Computer Engineering



In today's economy, computer engineering is highly pervasive across almost every sector, from high-tech manufacturing, aerospace, aviation, transportation, telecommunication and healthcare to finance and business.

Emerging trends such as the Internet of Things (IoT), Data Analytics, Artificial Intelligence and Smart Manufacturing are set to impact Singapore both socially and economically. This will give rise to a great demand for computer engineers. To meet this demand, this course aims to equip you with knowledge and skills in embedded systems to make things smart, computer networking for wired and wireless connectivity, as well as internet technology – all of which will empower you to create web and mobile applications, integrate systems and put together solutions.

Such a multi-disciplinary, winning combination of electronics and computer science prepares you to be amongst the few who are fully proficient in hardware, software and integration of hardware and software systems, to become total solution providers who are much sought after across various industry sectors. The course prepares you for internationally recognized industry certification examinations such as from National Instruments, CompTIA, Oracle, Microsoft and Cisco. You will also be equipped

with skills to learn “how to learn”, which would ensure that you stay relevant and are able to quickly adapt to change with the advent of “disruptive technologies” today.



We were deeply impressed by your student intern's technical competence, problem-solving skills, independent learning attitude and great initiative. Her work on an exploratory research-based project has culminated in a working framework that integrates modules across different applications. This is a testimony to the success of your course in equipping students with the critical competencies to meet the dynamic needs of today's industry.

Dr Lim Joo Hwee  
Head, Visual Computing Department  
Institute for Infocomm Research, A\*STAR

## Career Opportunities

It is estimated that nearly 50 billion devices in the world will be connected to the Internet by 2020. As Singapore progresses towards becoming a Smart Nation, IoT is poised to bring tremendous value and demand for computer engineers in a wide range of industries such as transportation, healthcare, retail, logistics & supply chain, smart grid and even the government sector. You can therefore look forward to excellent career prospects as this course equips you with the skills that IoT requires. You can establish a career as a hardware engineer, system engineer, network engineer, software engineer, or embedded/firmware engineer.

If you are interested to further your studies, many local and foreign universities offer our diploma holders advanced standing for their degree courses. In particular, NTU grants our graduates direct entry into the second year of degree programmes in Computer Engineering, Computer Science and Electrical & Electronic Engineering, while NUS grants exemptions for selected modules amounting to almost a year.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 81 credit units
Diploma Cluster Elective Subjects	: min 8 credit units
Total Credit Units Completed	: min 125 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED1001	Electronic Prototyping	1	3
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EMC2006	Internet of Things Project	2	4
ESE2004	Object-oriented Programming	2	5
EMC3002	Embedded Control & Applications	3	4
EMC3005	System & Network Integration	3	4
EMP3002	Major Project	3	8
ESE3010	Database Management System & Design	3	4

## DIPLOMA SUBJECTS – CLUSTER ELECTIVES

You can opt to take Cluster Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Advanced Engineering Skills</u>			
EED3014	Advanced Skills Practices	3	8
<u>Computer Applications</u>			
ECC2013	Mobile Device Applications Development	2	4
ESE3006	ASP.NET Web Programming	3	4
<u>Virtual Reality</u>			
EDM2010	3D Modelling for Virtual Reality	2	4
EDM3004	Interactive Programming for Virtual Reality	3	4

#### DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma cluster electives, will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Electronics



Electronics is an important part of the everyday operation of homes, offices, healthcare, factories and personal lifestyle. Satellite communication, sophisticated defence systems, medical equipment and multimedia systems are all made possible through electronics. This course will give you tremendous flexibility and width – a springboard to a wide range of career options.

The Economic Development Board of Singapore aims to develop the country into a world-class electronics hub providing technology with end-to-end R&D capabilities and position it as the choice location for companies to create and manage new markets, products, processes technologies and applications.

This course is positioned to be in line with industry goals and trends. It provides you with a solid foundation in the principles and applications of electronic devices, circuits, and systems, so as to equip you to meet the changing needs of the industry. Special emphasis is placed on embedded systems, networking, telecommunication, and power electronics and control. You will also develop effective communication, problem-solving and teamwork skills to prepare you for the workplace, as well as skills in project planning and management.

To be better prepared for the advancements in technology, second-year students can choose to take one of the following Cluster Electives: Avionics, Networking, Robotics & Automation, or Semiconductor Technology.



This course has proven itself successful in equipping its students with not only technical knowledge but also innovative ability and problem-solving skills. We strongly believe that the graduates from this course will bring the engineering field to a whole new level.

Liow Seow Poh  
Senior Manager  
Electronic Service Centre  
SDDA Pte Ltd (A company of ST Kinetics)

## Career Opportunities

Singapore is on its way to becoming a world-class electronics hub with global leadership in providing technology in manufacturing solutions, as well as in the creation and management of new products, applications and markets. Under the government's Industry Transformation Map (ITM), the electronics manufacturing sector aims to create S\$2.2 billion in value-add and 2,100 new jobs by the year 2020, thereby giving you excellent career prospects.

You will have excellent and flexible career prospects in robotics, smart systems, aerospace, semiconductor, telecommunication, instrumentation and control, computing, consumer and industrial electronics industries. Your job areas may include product design, development & testing, process improvement, maintenance, marketing and sales.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 82 credit units
Diploma Cluster Elective Subjects	: min 8 credit units
Total Credit Units Completed	: min 126 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

#### DIPLOMA SUBJECTS - CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED1001	Electronic Prototyping	1	3
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
EMP3002	Major Project	3	8
EED3014	Advanced Skills Practices	3	8

#### DIPLOMA SUBJECTS – CLUSTER ELECTIVES

You can opt to take Cluster Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Avionics</u>			
EAE1006	Avionic Systems	1	4
ECT2005	Circuits & Control Systems	2	4
EED1002	Printed Circuit Board Design	1	3
ESE1007	Engineering Analytics	1	3
EEE2005	Integrated Circuit Applications	2	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EAE3018	Aircraft Digital Systems	3	5
EEE3004	Power Electronics & Drives	3	4
EEE3005	Advanced Electronics & Communication	3	4
EMC3002	Embedded Control & Applications	3	4

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Networking</u>			
ECC1002	Networking Fundamentals	1	4
EED1002	Printed Circuit Board Design	1	3
ESE1007	Engineering Analytics	1	3
ECT2005	Circuits & Control Systems	2	4
EEE2005	Integrated Circuit Applications	2	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EEE3004	Power Electronics & Drives	3	4
EEE3005	Advanced Electronics & Communication	3	4
EMC3002	Embedded Control & Applications	3	4
EMC3005	System & Network Integration	3	4
<u>Robotics &amp; Automation</u>			
EED1002	Printed Circuit Board Design	1	3
ESE1007	Engineering Analytics	1	3
ECT2005	Circuits & Control Systems	2	4
EEE2005	Integrated Circuit Applications	2	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
ECT3002	Analytical Robotics	3	4
EEE3004	Power Electronics & Drives	3	4
EEE3005	Advanced Electronics & Communication	3	4
EMC3002	Embedded Control & Applications	3	4
EMF3004	Automation & Machine Vision	3	4
<u>Semiconductor Technology</u>			
EED1002	Printed Circuit Board Design	1	3
ESE1007	Engineering Analytics	1	3
ECT2005	Circuits & Control Systems	2	4
EEE2005	Integrated Circuit Applications	2	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EMI2008	IC Process Integration	2	4
EEE3004	Power Electronics & Drives	3	4
EEE3005	Advanced Electronics & Communication	3	4
EMC3002	Embedded Control & Applications	3	4
EMI3005	Cleanroom Equipment & Technology	3	4

#### DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma cluster electives, will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Green Building & Sustainability



“Going Green” is today’s catch phrase, reflecting the growing worldwide concern for the environment. A green building is one that is designed to reduce its impact on mankind and the environment. Despite rapid urbanisation, we must ensure that our future is safe and healthy for everyone – in other words, there must be sustainability.

New buildings – both commercial as well as residential – now come with not just automated high-tech gadgets, but also energy-saving features. This focus on environment-friendly buildings is not just a local industry trend; it is part of a global push by governments worldwide to create an environmentally sustainable infrastructure that will support the emerging lifestyles of a new generation of people with higher expectations of how they live, work, and play.

This course will equip you with the knowledge of green building architecture, technologies and practices, including passive and sustainable design, energy auditing and building management. Subjects such as Total Building Performance and Energy Audit and Measurements will give you the fundamental knowledge of good green building practices and designs. You will also be trained in the use of industry software for architectural drawings and building performance simulations.

In addition to the diploma, graduates from this course will be awarded the Associate Singapore Certified Energy Manager (ASCEM) certificate which is jointly administered by the National Environment Agency (NEA) and the institution of Engineers, Singapore (IES). The demand for ASCEM professionals has increased greatly with the need for energy conservation in every building and it is the most sought after certification for people who wish to pursue a career in the energy conservation industry.



The re-launching of this course to emphasise today’s green initiatives and the worldwide push to make buildings more environment-friendly is definitely a step in the right direction. We are confident that this course will produce the necessary skilled manpower for this emerging industry with great potential.

Tan Tian Chong  
Director, Technology Development  
Building & Construction Authority

## Career Opportunities

With the launch of the Building & Construction Authority's "Green Mark" rating system to evaluate a building's environmental friendliness, building and property owners are now striving to adopt green building technologies and the best practices in environmental design and construction.

Green buildings currently make up more than 35 percent of buildings in Singapore, but come 2030, that figure is targeted to reach 80 percent of all buildings, driven by government funding to "green" all existing buildings. This alone gives an indication of the amount of retrofitting that will need to be done to buildings in our country, creating abundant job opportunities and demand for green building professionals. At the same time, new buildings coming on-stream need to incorporate green features and technology as well, adding to the demand.

You can look forward to careers in the energy market, sustainable design or building design industries, and find exciting job opportunities as an energy or green building consultant, an eco-city planner or designer, a green marketing executive or an environmentally sustainable design (ESD) engineer.

You can also further your qualifications in the fields of sustainable design and architectural-related programmes. Under a special arrangement, our diploma holders can get an Honours degree in Architectural Engineering from the University of Northumbria, UK, in just one year, or a Master's degree in two years.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 92 credit units
Total Credit Units Completed	: min 128 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

*\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.*

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBD1004	Virtual Design & Facility Planning	1	3
EEE1001	Circuit Analysis	1	6
EER1001	Electrical Services for Facilities	1	4
EGB1001	Introduction to Green Development	1	4
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EBD2009	Building Information Modelling Collaboration	2	3
EBM2004	Project Management	2	4
EBM2005	Fire & Life Safety Management	2	4
EBM2006	Building Management Systems	2	5
EGB2002	Air Conditioning & Mechanical Ventilation	2	4
EGB2003	Hydraulics & Drives	2	4
EGB2004	Tropical Architecture for Sustainability	2	4
EGB2005	Green Building Modelling & Simulation	2	5
EBM3005	Energy Management & Audit	3	4
EFM3001	Sustainable Facility Management	3	4
EGB3003	Total Building Performance	3	4
EGB3004	Sustainable Design	3	4
EMP3002	Major Project	3	8

## DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2

# Integrated Facility Management



Integrated Resorts, airports, business towers, factories, shopping complexes, hospitals, schools – these facilities house an overwhelming amount of human activity. Who are the people who manage these facilities to ensure that businesses benefit? Who provides residents with the greatest human comfort at the least cost to the environment? Welcome to the world of Facility Management.

This course will train you as a professional who will manage the various physical facilities in today's modern landscape – in terms of not only a building's features and structure, but also its amenities, aesthetics and functionality, as well as how users interact with them. These facilities include Integrated Resorts, airports, events & convention centres, business & financial facilities, leisure and entertainment hubs, hospitality and tourism attractions, as well as residential heartlands. You can also take additional Cluster Electives in two very promising industries: Aviation Facilities and Hospitality Facilities.

As the first diploma course in Singapore dealing with facility management for the hospitality and aviation industries, and also the first diploma course in the world to be accredited by IFMA Foundation as an Accredited Degree Programme, this course will give you a worldwide competitive edge.



This course has an outstanding faculty, curriculum, student body, as well as facilities. The Commission on Academic Affairs of IFMA is impressed with the technical depth of this IFM programme.

Charles M Claar  
Commission on Academic Affairs (2010)  
International Facility Management  
Association (IFMA) Foundation

## Career Opportunities

Armed with multi-disciplinary skills, you will find employment in the facilities management or development teams in the airport, hospitality and tourism, events and conventions, leisure and entertainment, integrated resorts, business and financial sectors.

On top of your diploma, the attained competencies will enable you to pursue numerous certifications recognised by the industry. These include the Facility Management Professional (FMP) certification by the International Facility Management Association (IFMA), the Fire Safety Manager (FSM) certification by the Singapore Civil Defence Force (SCDF), the Certified Associate in Project Management (CAPM) certification by the Project Management Institute (PMI), as well as the Associate Certified Project Engineer (Assoc. CPE) certification from the Institution of Engineers Singapore (IES).

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 77 credit units
Diploma Cluster Elective Subjects	: 12 credit units
Total Credit Units Completed	: min 125 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBD1004	Virtual Design & Facility Planning	1	3
EBT1003	Facilities Operations & Maintenance	1	4
EER1001	Electrical Services for Facilities	1	4
EFM1002	Workplace Safety & Health for Facility Management	1	4
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EBD2005	Security & Surveillance	2	4
EBD2009	Building Information Modelling Collaboration	2	3
EBM2004	Project Management	2	4
EBM2005	Fire & Life Safety Management	2	4
EBZ2006	Service Quality & Management	2	4
EFM2004	Contract Management	2	4
EGB2002	Air Conditioning & Mechanical Ventilation	2	4
EBM3005	Energy Management & Audit	3	4
EFM3001	Sustainable Facility Management	3	4
EGB3003	Total Building Performance	3	4
EMP3002	Major Project	3	8

## DIPLOMA SUBJECTS – CLUSTER ELECTIVES

You can opt to take Cluster Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

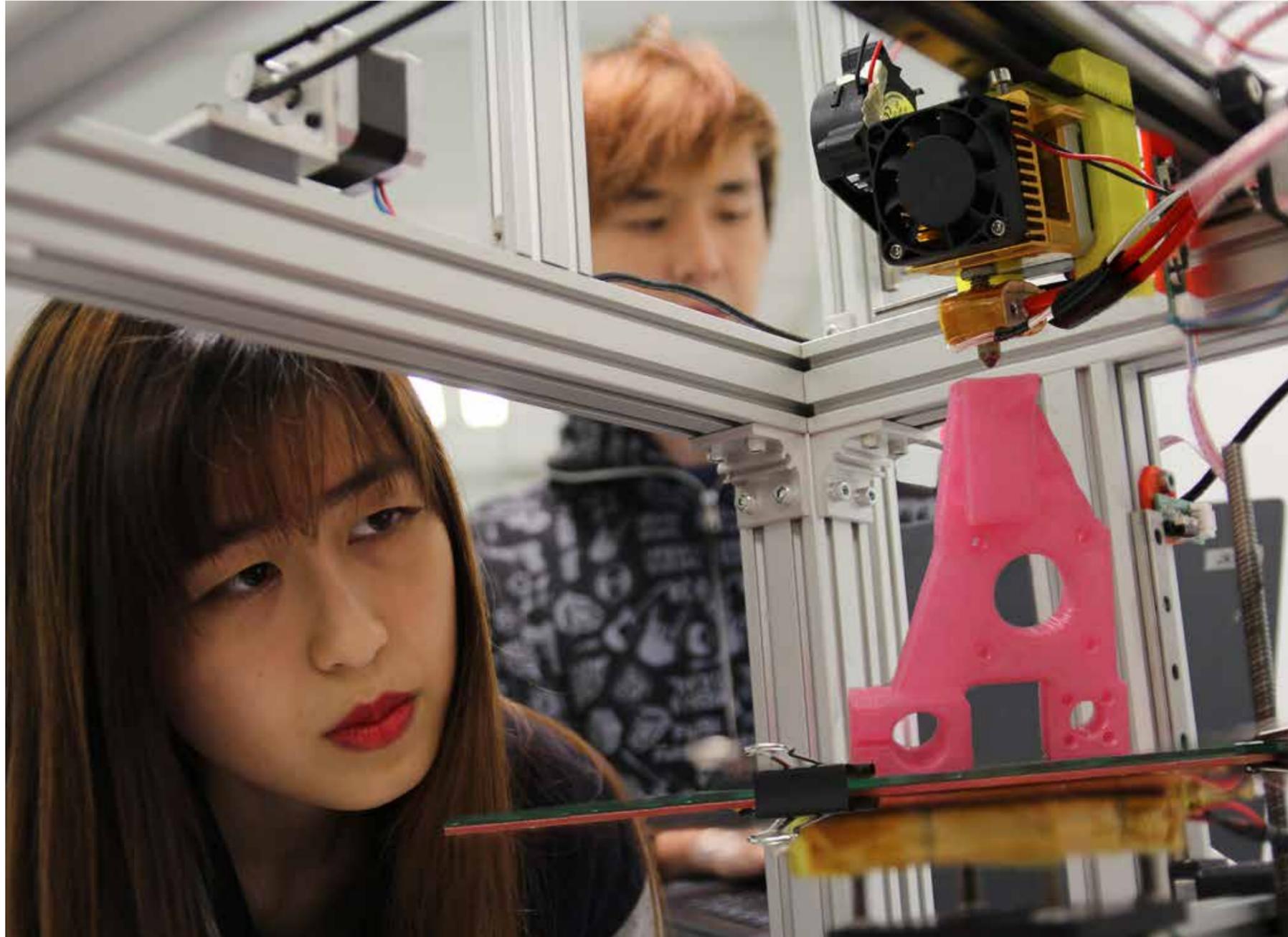
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Aviation Facilities Elective Cluster</u>			
EAM1001	Airport Operations & Management	1	4
EAT2006	Airport Systems	2	4
EAM3002	Airport Administration	3	4
<u>Hospitality Facilities Elective Cluster</u>			
BHT1010	Introduction to Hospitality & Tourism	1	4
BHT2003	Club & Resort Business	2	4
BHT2005	Event Management	2	4

#### DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma cluster electives, will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2

# Mechatronics



In an era that increasingly values productivity, engineering employers favour graduates with knowledge of both mechanical engineering and electronics, and their ability to integrate them with intelligent control systems. This is exactly the versatility that you will get from this course.

Mechatronics is the only discipline of engineering that gives you such versatility. This course begins by giving you a solid foundation in fundamental engineering knowledge and skills, which will then expand into areas such as automation, robotics, mechatronics design, programmable logic controllers, electromechanical, pneumatics, vision systems, sensors integration, microcontroller programming, control engineering and aerospace engineering.

In your final year, you are offered a wide choice of elective subjects. The subjects are categorised into four elective clusters involving key areas of technology: Aerospace Systems, Process Control & Automation, Robotics & Automation, and Semiconductor Technology. By applying these knowledge and skills in product design and automation processes, Mechatronics gives you the flexibility to work in a wide range

of high-value industries such as aerospace, automation, clean room, manufacturing, medical, robotics, R&D support and wafer fabrication.



This course equips you with the fundamental knowledge and skill in integrating mechanical and electronics using computer control, so that you will definitely be well prepared to establish a career in today's modern industry. I can confidently say that, by graduating from this course, huge opportunities for success are open to you.

Robson Tan  
Managing Director  
NICA Trading & Industrial Supplies

## Career Opportunities

The opportunities and benefits to be gained from designing smart products and automated systems are huge, and will continue to grow rapidly in the coming years. You will excel in a wide spectrum of industries as diverse as electronics, manufacturing, food processing, pharmaceuticals, chemicals and aerospace. You may also choose to do R&D work, equipment design and development, planning, project management, as well as technical sales and marketing, qualifying you to work in high-tech manufacturing environments and the growing petrochemical industry. Your diploma will also enable you to take up local and overseas degree programmes in electronic, mechanical, aerospace or computer engineering.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 83 credit units
Diploma Cluster Elective Subjects	: min 7 credit units
Total Credit Units Completed	: min 126 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
ECS1005	Communication & Information Literacy	1	2	
ECS1006	Workplace Communication	1	2	
ECS1007	Persuasive Communication	1	2	
EGS1002	Global Studies	1	3	
EGS1003	Managing Diversity at Work*	1	3	
EGS1004	Global Citizenship & Community Development*	1	3	
EGS1005	Expressions of Culture*	1	3	
EIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
ESI3001	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EDR1003	Engineering Drawing	1	4
EED1001	Electronic Prototyping	1	3
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
EME1002	Statics & Strength of Materials	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EED2007	Mechatronics Design Project	2	4
EMA2003	Engineering Mathematics 3	2	4
EME2004	Programmable Automation	2	4
EME2007	Machining Technology	2	4
EME2008	Principles of Dynamics	2	5
EME2011	Engineering Design	2	3
EMP3002	Major Project	3	8

## DIPLOMA SUBJECTS - CLUSTER ELECTIVES

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Advanced Engineering Skills</u>			
EED3014	Advanced Skills Practices	3	8
<u>Aerospace Systems</u>			
EME2009	Thermodynamics	2	3
EAE3008	Gas Turbine Engine	3	4
<u>Process Control &amp; Automation</u>			
ECT2004	Instrumentation & Computer Control	2	4
EMF3004	Automation & Machine Vision	3	4
<u>Robotics &amp; Automation</u>			
ECT3002	Analytical Robotics	3	4
EMF3004	Automation & Machine Vision	3	4
<u>Semiconductor Technology</u>			
EMI2008	IC Process Integration	2	4
EMI3005	Cleanroom Equipment & Technology	3	4

## DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma cluster electives, will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Microelectronics



Want to know why Singapore is nicknamed “Silicon Island of the East” and what this means to you in terms of career prospects and opportunities? Our Diploma in Microelectronics will help you to answer this important question!

Microelectronics is about the design and fabrication of extremely tiny circuits or gadgets in the form of integrated circuits(IC), micro-sensors, and micro-devices such as microprocessors, flash memory drives, SD cards, SIM cards, and surgical micro-robots. This technology empowers most of today’s cutting-edge smart devices such as tablets, mobile phones and HD TVs and they push the boundaries of exciting mobile apps and games.

In this course, you will enrol through either the Electrical & Electronic Engineering (EEE) Programme or Common Engineering Programme (CEP) and go through a common first year. From your second year onwards, you will specialise in Microelectronics and enjoy the privilege of using our comprehensive IC manufacturing facilities such as our Class 100 Cleanroom, industrial grade IC Design Software and IC Test Systems. You will be equipped with specialised knowledge and skills that will give you a distinct advantage when you pursue exciting careers in the Microelectronics field in Singapore, which is home to more than 50 semiconductor companies.



You have equipped your students well with the basic knowledge and skills needed for the semiconductor sector. From our experience of working with students from this diploma course, we have found them to be confident, competent, and ready to meet the challenges of the dynamic microelectronics industry.

Mdm Toh Geok Tin  
Senior Layout Design Manager  
Marvell Asia Pte Ltd

## Career Opportunities

You will be equipped with technical skills in the use of electronics and microelectronics-related equipment, as well as analogue and digital systems. These skills will be your springboard to exciting careers with good starting salaries in multi-billion dollar wafer fabrication plants, IC chip assembly and test companies, IC chip design centres as well as research centres and manufacturers of today's high-tech smart devices. Job prospects are attractive and diverse, covering design, technical support, manufacturing, sales and marketing, as well as service and maintenance.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS			
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1005	Communication & Information Literacy	1	2
ECS1006	Workplace Communication	1	2
ECS1007	Persuasive Communication	1	2
EGS1002	Global Studies	1	3
EGS1003	Managing Diversity at Work*	1	3
EGS1004	Global Citizenship & Community Development*	1	3
EGS1005	Expressions of Culture*	1	3
EIN1001	Innovation & Entrepreneurship	1	2
GCC1001	Current Issues & Critical Thinking	1	2
LEA1011	Leadership: Essential Attributes & Practice 1	1	1
LEA1012	Leadership: Essential Attributes & Practice 2	1	1
LEA1013	Leadership: Essential Attributes & Practice 3	1	1
LSW1002	Sports & Wellness	1	2
MCR1001	Career Readiness 1	1	1
MCR1002	Career Readiness 2	1	1
MCR1003	Career Readiness 3	1	1
TGL1001	Guided Learning	1	3
ESI3001	Student Internship Programme	3	12

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Core Subjects	: 90 credit units
Total Credit Units Completed	: min 126 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

*Note: Applicants should not be suffering from severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

*\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED1001	Electronic Prototyping	1	3
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EMA1002	Engineering Mathematics 2	1	4
EMA1003	Engineering Mathematics 1	1	4
ESC1004	Engineering Physics	1	3
ESE1006	Computer Programming for Problem Solving	1	4
ESE1007	Engineering Analytics	1	3
EMA2003	Engineering Mathematics 3	2	4
EMC2001	Microcontroller Technology	2	5
EMI2001	Semiconductor Physics & Devices	2	4
EMI2002	Wafer Fabrication Process Technology	2	5
EMI2005	IC Packaging & Failure Analysis	2	4
EMI2008	IC Process Integration	2	4
EMI2009	IC Layout Design	2	5
EMI3005	Cleanroom Equipment & Technology	3	4
EMI3009	Microelectronics Test & Measurement	3	4
EMP3002	Major Project	3	8

### DIPLOMA SUBJECTS – SPECIAL ELECTIVES

You can opt to take Special Electives when offered. These optional subjects will stretch your potential and help you to meet your aspirations.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EED3009	Special Project 1	3	2
EED3010	Special Project 2	3	2
EED3011	Higher Engineering Skills 1	3	2
EED3012	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

# Special Programmes



The School of Engineering also offers three special common gateway programmes which allow you to decide on the course to take only after one or two semesters. You will graduate with the same diploma as students who had enrolled for a particular course right from the start.

## **Common Engineering Programme**

This is a single gateway to 8 different engineering diploma courses, which gives you extreme flexibility. You do a common first year, and choose your diploma course only in your second year, so that you have more time to find out your strengths and interests before deciding. So if you are undecided on the engineering course to take, this flexible programme would suit you. You also get a second chance to enter our highly-popular Aerospace courses using your first semester polytechnic results.

You may choose from these 8 diploma courses:

- Aerospace Electronics
- Aerospace Engineering
- Biomedical Engineering
- Clean Energy
- Computer Engineering
- Electronics
- Mechatronics
- Microelectronics

## **Electrical & Electronic Engineering (EEE) Programme**

You will do a common first year, and then, after observing the economy and industry trends, choose one out of the four EEE-related courses to specialise in, from your second year onwards. All four programmes will gear you ideally for further studies in EEE-related degree courses at local and overseas universities.

You may choose from these 4 diploma courses:

- Aerospace Electronics
- Electronics
- Computer Engineering
- Microelectronics

## **Mechatronics & Aerospace Programme**

You will branch into either the Mechatronics or Aerospace Engineering course in your second semester. Since these two fields are closely-related, you will be well positioned to keep your options open. You also get a second chance to enter our highly-popular Aerospace Engineering course using your first semester polytechnic results.

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

Do note that you will take the same three years to complete your course, and upon graduation, you will receive the same diploma as your peers who had enrolled for a particular course right from the start.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

5 GCE O Level subjects comprising:	
English Language (EL1)*	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any one of the following subjects^	Grades 1 - 6
Any two other subjects, excluding CCA	-

^ Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Design & Technology, Fundamentals of Electronics, Physical Science, Physics/Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

\* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.

*Note: Any special entry requirements for a specific diploma course, such as health status, will also apply if you choose to branch into that course.*

# Subject Synopses

## BHT1010 Introduction to Hospitality & Tourism

This subject provides an overview of the multi-faceted nature of the hospitality and tourism industry. You will gain an insight into how the key sectors are organised and structured and how they relate to each other as an industry. The concept of tourism demands and tourism consumer behaviour will be introduced. Lastly, you will explore trends, issues and challenges facing the industry.

## BHT2003 Club & Resort Business

This subject covers the various definitions and classifications of club and resort business, resort planning and development, as well as operations and marketing of clubs and resorts. It gives you an appreciation of the operational challenges faced by clubs and resorts.

## BHT2005 Event Management

This subject introduces the scope of events and their application in the context of the tourism industry. From this macro perspective, you will build a foundation in event conceptualisation, development and production, covering topics such as marketing of events, human resource management and budgeting, and staging.

## DNG1342 Drawing Essentials

This subject introduces you to the basics of sketching and drawing techniques. A primary component of this module is to understand the importance of proportion in drawing and the effect of light and its different tones on various surfaces.

## DNG1344 3D Art Fundamentals

This subject introduces you to the fundamentals of art through a variety of 3D techniques and media. It focuses on inculcating visual and observational skills through the tactile qualities in texture and form by feeling and working with different 3D materials.

## DNG1345 Ideation

This subject introduces you to some idea generation, analysis and synthesis techniques within a problem-solving framework. Through these techniques, you will explore and develop fluidity of thought as well as an analytical mind. This subject introduces visual literacy through which you develop your personal visual language to communicate a great variety of concepts. You will also develop and demonstrate your aesthetic awareness and design sensibility.

## DNG2371 Interface Design

This subject introduces you to the basic principles of graphic user interface (GUI) and user experience design. It focuses on the basic rules of visual information organisation and hierarchy, and explores the process of navigation on screen. It also examines the choice of appropriate styles and graphic treatment for the intended audience, and the use of conceptual models for creating appropriate user experience.

## EAD1001 Introduction to Civil Aviation

This module provides you with an overview of the aviation industry and introduces the key concepts and interaction of components in the aviation system including airports, airlines, supporting organisations and civil aviation authorities. It covers the role of key players in the aviation industry as well as aviation economics and legislation.

## EAE1002 Aircraft Electrical Fundamentals

This subject provides you with broad-based knowledge on electrical theories, components and devices. It also covers electrical machines. In addition, you will be equipped with the knowledge that is expected under the Singapore Airworthiness Requirements (SAR66), so that you will be competent in getting your aircraft maintenance certification later on.

## EAE1004 Fundamentals of Aeronautical Science

This subject gives a broad overview of the basic concepts involved in aeronautical science. Beginning with units for different quantities, it covers mechanical forces, principles of moments, stress and strain, properties of solids, fluids and gases, simple harmonic motion, momentum and energy, gyroscopic principles, viscosity and compressibility, heat capacity and heat transfer, laws of thermodynamics, latent heat, principles of light, lenses and mirrors, and fibre optics. Transverse and longitudinal waves, intensity and pitch of sound, and vibrating strings and pipes are also included. The syllabus is tailored to follow all topics from the Singapore Airworthiness Requirements (SAR- 66) on Physics (Module M2).

## EAE1006 Avionic Systems

This subject gives a broad overview of aircraft avionics and architecture at the system level, and provides a context for follow-on training. It introduces you to the key avionics deployed on-board an air transport aircraft, including the crew information systems, the safety and surveillance systems, the flight and engine control systems, the electrical power system, the navigation systems as well as the communications and information systems.

## EAE1008 Aircraft Electronics & Digital Systems

This subject covers the basics of semiconductors, printed circuit boards, servomechanisms, electronic instrument systems, logic circuits, fibre optics, electronic displays, electronic sensitive devices, electromagnetic environment and digital aircraft systems. The depth of coverage will adhere to the requirement of SAR-66 (Category B1) for M4 – Electronic Fundamentals and M5 - Digital Techniques/ Electronic Instrument Systems.

## EAE2002 Aviation Legislation & Human Factors

This subject provides you with basic knowledge and understanding of aviation legislation and human factors for novice engineers studying for their Singapore Airworthiness Requirements (SAR-66) aircraft maintenance licences. Knowledge of this subject has a significant impact on the safety standards and responsibilities expected of the holder of an aircraft maintenance licence.

## EAE2003 Aircraft Electronics & Servomechanisms

This subject provides you with broad-based knowledge in the theory and operation of semiconductor diodes, printed circuit boards, transistors, integrated circuits and feedback control systems. You will also be trained to identify typical synchro issues encountered in servomechanisms. In addition, you will be equipped with the required knowledge in SAR-66 so that they can be competent to get certified in aircraft maintenance.

## EAE3008 Gas Turbine Engine

This subject equips you with basic technical knowledge of aircraft propulsion methods, thermodynamic cycles, combustion, gas turbine engines, effects of atmospheric variations (temperature, density, pressure altitude) on engine auxiliary systems (such as fuel system, lubrication system, ignition, starting, fire protection and auxiliary power unit), and current developments in propulsion systems. The syllabus is aligned with the Singapore Airworthiness Requirements (SAR-66) Module M15 on Gas Turbine Engine.

## EAE3009 Basic Aerodynamics

This subject introduces you to the principles of aerodynamics and flight controls. It is designed to give a good balance between theoretical knowledge with applications using classroom lessons, wind tunnel and computational fluid dynamics experiments. The syllabus includes all topics in the Singapore Airworthiness Requirements (SAR-66) Module M08 on Basic Aerodynamics.

## EAE3018 Aircraft Digital Systems

This subject covers the general knowledge of the theoretical and practical aspects of aircraft digital fundamentals. This involves understanding and the ability to apply this knowledge in the area of electronic instrument systems, logic circuits, fibre optics, aircraft data buses, electronic displays, electronic sensitive devices, electromagnetic environment and digital aircraft systems as required by Singapore Airworthiness Requirements (SAR-66) of the Civil Aviation Authority of Singapore.

## EAE3020 Aerospace Maintenance Practices

This subject provides you with a basic knowledge and understanding of aircraft hardware and maintenance practices for ab initio engineers studying for their Civil Aviation Authority of Singapore (CAAS) Singapore Airworthiness Requirements (SAR-66) basic knowledge examination in the modules Materials and Hardware (M06) and Maintenance Practices (M07), leading to aircraft maintenance licence for category B1 or category B2 maintenance engineers. This subject covers ferrous, non-ferrous and composites materials, types of corrosion and their identification, bolts and rivets fastener, piping, control cables and also the electrical components of the aircraft systems. It also includes broad-based knowledge of safety precautions, work practices in an aircraft maintenance environment, mechanical and electrical tools, generic aircraft systems and inspection techniques.

## EAL1003 Airline Operations

The subject covers the fundamentals of airline operations. Topics covered include ground operations such as handling of passengers, baggage, cargo, as well as ramp handling services, aircraft engineering and maintenance. Other topics include airline flight operations such as flight control centre, flight crew and cabin crew scheduling, flight procedures and requirements, airline operational efficiency and punctuality, and flight delay management.

## EAL1004 Principles of Aeronautical Science

This subject provides you with a basic understanding of the fundamentals of flight operations. Topics covered include the component parts of an airplane, atmosphere, theory of flight, flight controls and stability of an aircraft, as well as airplane instruments.

## EAL2005 Airline Management

This subject covers the fundamentals of airline business and management. The contents include airline business models, key airline performance indicators, airline marketing, airline route and network development and airline administration. Other topics covered include management of airline profitability using airline simulation and SWOT analysis.

## EAL3004 Management for Air Cargo

This subject introduces you to the fundamentals of air cargo management, including the importance of air cargo to the economy. You will learn about the typical air freight process, the various stakeholders, use of information technology and how air freight supports e-Commerce. Topics covered include an overview of major players in air cargo operations, cargo handling and storage, aircraft loading and scheduling, import and export flows, documentation as well as cargo pricing methodology.

## EAL3005 Air Navigation

This subject provides you with a basic understanding of air navigation. Topics covered include chart projections, time datum, altimetry, operating principles of navigational aids and the use of navigation computer for various speed and wind calculations.

## EAL3006 Flight Planning

This subject introduces you to the concept of flight planning and monitoring that are required in flight operations. Topics covered include operational procedures, communication, navigation aids and charts, aviation publications, weather information, basic aircraft performance and fuel planning, and how these are consolidated in the generation of flight plans.

## EAM1001 Airport Operations & Management

This subject provides an overview of airports, key players in airport operations, passenger terminal operations, airport access and landside operations, airside operations, wayfinding and signage system, contingency planning and airport security.

## EAM2007 Aviation Safety & Security

This subject covers aviation security and safety issues related to airport operations and safety. This includes the security threats, safety hazards and human error in aviation within the management framework of security and safety risk management.

## EAM3002 Airport Administration

This subject introduces the fundamental concepts and principles involved in the organisational, political and financial administration of modern international airports. Topics covered include airport performance, airport commercial management, estate management and airport finance. An overview of the various airport ownership models is also included.

### **EAM3003 Meteorological Studies**

This subject introduces the concept of meteorology that is required in flight operations. Meteorological concepts such as the Earth's atmosphere, pressure, density, synoptic charts, pressure systems, altimetry, temperature, humidity, adiabatic and stability, turbulence and low and upper winds are discussed in detail. In addition, clouds, cloud formation and precipitation, thunderstorms, visibility, icing, documentation, weather charts, air masses, occlusions, other depressions, global climatology, surface winds, general weather, area climatology, route climatology and satellite observations are also covered.

### **EAT2006 Airport Systems**

This subject provides you with an overview of the key facilities and systems in both the landside and airside of an airport. Topics covered include the functions and operation of various airport systems such as Passenger Check-in Systems (PCS), Flight Information Display Systems (FIDS), Baggage Handling System (BHS), Automated People Mover System (APMS) and Passenger Loading Bridges (PLB). On the airside, topics covered include the cause of wear and tear of aircraft pavements, methods of assessing the condition of aircraft pavements, the programming of maintenance works as well as techniques of repair and their compliance to international operational standards and requirements.

### **EAT2007 Airfield Systems**

This subject covers the fundamentals of airfield systems. Topics included are aeronautical telecommunications, functions of air and ground radar systems, automatic dependent surveillance and controller-pilot data link communication, aerodrome approach aid and requirements of the various categories of aerodrome ground aids used in air traffic services.

### **EAT3001 Air Traffic Management**

This subject covers theoretical and practical skills in Air Traffic Management. Topics included are Fundamentals of Aviation Law, Emergency Procedures, Fundamentals of Air Traffic Management, Aerodrome Control, Approach Control and Area Control.

### **EBD1004 Virtual Design & Facility Planning**

This subject develops your skills to visualise facility design and planning. You will learn facility planning concepts with the use of digital tools for visualisation, simulation and documentation. The knowledge gained can be applied to create virtual design projects in the built environment sector.

### **EBD2005 Security & Surveillance**

This subject gives an overview of security and surveillance, including the entire process of their design and integration. The main emphasis is placed on applying scientific and engineering principles for the design of the system and the use of component performance measures to establish the effectiveness of such systems when applied across various business sectors.

### **EBD2009 Building Information Modelling Collaboration**

This subject emphasises the use of Building Information Modelling (BIM) software to design and develop building services systems that meet the intended objectives. You will learn the processes of incorporating established architectural models with Mechanical, Electrical, Plumbing (MEP) and Fire Protection systems and inter-disciplines collaboration work. The use of the as-built models and the information contained therein for BIM Facility Management (BIMFM) and other simulation tools such as energy modelling will also be discussed.

### **EBI3004 Audiometry & Hearing Devices**

This subject focuses on the hearing health sector in biomedicine. It exposes you to the science of hearing assessment and technologies available to remediate hearing loss. You will study the properties of sound, the physiology of hearing and the causes of hearing impairment. The subject will equip you with the skills to screen for hearing impairment. You will also learn about the underlying technologies behind digital hearing aids.

### **EBI3008 Medical Imaging & Informatics**

This subject will cover Medical Imaging techniques and Health Information Systems with the implementation of IT in the healthcare setting. This covers decision-making in patient care, clinical workflow, network infrastructures, standards and interoperability issues, and patient data privacy and security.

### **EBM2004 Project Management**

This subject aims to provide you with an overview of the principles and concepts in project management and equip you with the theoretical foundation and skills in using project management tools. It emphasises the knowledge and practices which are widely applied in project management. Topics covered include the project management framework, project management processes and project management knowledge areas.

### **EBM2005 Fire & Life Safety Management**

This subject introduces you to the roles and responsibilities of a Fire Safety Manager for both commercial buildings and industrial premises. You will be exposed to the procedure adopted in running a fire command centre, the use of detection, protection and control systems, fire investigation and formulation of a fire emergency plan.

### **EBM2006 Building Management Systems**

This subject covers the fundamental knowledge required in the design and operation of a Building Management System (BMS). The concept of controls and monitoring with sensors and Direct Digital Controllers will be introduced. The roles of BMS in building controls, facility management and energy management will also be covered.

### **EBM3004 Business Continuity Management**

This subject introduces you to the concepts and trends in the design, development, implementation and management of business continuity. Beginning with an introduction of Business Continuity Management (BCM), it delves into analysing business risk and impact, and evaluating BCM strategies and plans. Emergency response and crisis management plans and the coordination with external agencies are also discussed.

### **EBM3005 Energy Management & Audit**

This subject covers two main areas: energy management and energy audit. For the former, the subject illustrates the intrinsic value and concept of energy management as well as the considerations and steps involved in implementation. For Energy Audit, the emphasis is on the method and procedure in auditing energy efficiency and evaluating the energy performance of buildings and its subsystems. These will include the use of energy performance benchmarks and a comparison with acceptable practices and prevailing codes and regulations. Finally, the subject discusses how the life-cycle-cost concept is used to evaluate the economic viability of any proposal to improve energy performance.

## EBS1004 Human Anatomy & Physiology

This subject provides you with a basic understanding of human anatomy and physiology. Topics covered include the anatomy of the organs and organ systems and their functions.

## EBS2004 Medical Biochemistry

This subject covers biochemical and molecular exchanges that occur within the human body in the context of medicine, usually in terms of drug interactions or cellular responses to diseases. It includes Biochemistry, which investigates the constituents of biological systems, their properties and their significance to biological science, as well as Molecular Genetics, which studies DNA structure, DNA replication, DNA transcription & translation and DNA mutations. Connections will also be made between the two areas of study.

## EBS2005 Clinical Laboratory Equipment

This subject provides you with an understanding of the equipment widely used in clinical laboratories. Topics covered include the principles and applications of commonly-used clinical laboratory equipment. Essential insights on clinical laboratory practices are also covered.

## EBT1003 Facilities Operations & Maintenance

You will learn about air-conditioning and ventilation, cold water distribution systems, electrical installations, lifts and escalators - all of which are the key systems in facilities operations. You will discover how these are important in the management and maintenance of a facility, as they enable effective operation and better business performance, thus leading to a higher work satisfaction and increased productivity among employees.

## EBZ1004 Business Fundamentals

This subject provides you with an overall view pertaining to the four pillars of business: Management, Marketing, Money and Manpower. Introductory topics correlating to the four pillars of operation - Management Fundamentals, Marketing Principles, Financial Statements and Organisation Behaviour, will be taught.

## EBZ1002 Principles of Economics

This subject provides you with a broad introduction to the theoretical knowledge and application of the key principles of economics and the related economic behaviour in the business environment within the Singapore economy. Some of the key principles and theories include supply and demand, market structures, GDP measurement, aggregate demand and aggregate supply and macroeconomic policies.

## EBZ2002 Marketing Intelligence

This subject provides you with an overview of the role of marketing intelligence in decision making processes. It covers the methodologies in marketing intelligence and the use of timely and accurate information for making vital and sound business decisions.

## EBZ2003 Engineering Economy

This subject provides a basic understanding of the economic aspects of engineering applications, elements of costs and costing methods, and the relationship between cost behaviour and profit. You will be expected to analyse different investment alternatives for economic decision making. The subject also discusses using EVA (Economic Value Added) to measure business performance.

## EBZ2006 Service Quality & Management

This subject introduces the key concepts and principles of Service Quality and Management. Topics covered include concepts of quality services, essential skills in customer services, principles and strategy of service management, methods for service quality measurements and service recovery.

## EBZ3008 Technopreneurship

This subject covers the basic fields of technopreneurship. It examines the traits of successful technopreneurs and the basic start-up of new businesses. Through project work, you have the opportunity to conduct field research, identify, evaluate and select viable businesses, and then develop feasible business plans applying the knowledge and tools covered in different topics such as marketing, customer orientation, pricing, communication, financial judgement, managerial importance, service orientation and competitive strategies.

## ECA3002 Virtual Reality

This subject emphasises the importance of virtual prototyping in manufacturing and e-commerce applications. You will be taught three main areas: modelling, behaviour programming and display systems. You will work on a 3D web page which incorporates an interactive virtual world, standard HTML, text, sound, animation and graphics.

## ECA3003 3D Modelling

This subject equips you with different techniques and strategies to model 3D objects and generate 2D drawings using Computer-Aided Design software. Fundamental knowledge of solid modelling and creating of proper product drawings will be covered. You will also master the skills of creating assembly models, which will be used in the last part of the course to generate product assembly animation and realistic product rendering.

## ECC1002 Networking Fundamentals

This subject covers the fundamental principles of data communications essential for the understanding of computer networking. It includes the basic knowledge of data transmission, the Open Systems Interconnection (OSI) model, as well as local area network protocols and technologies.

## ECC2010 Mobile Device Applications Development

This subject covers the development of applications on mobile and wireless computing platforms. It provides you with an overview of mobile applications, its importance and benefits. It introduces you to the technologies and methodologies for their development. These include the architectures, frameworks, standards, programming languages, design process and tools.

## ECC2012 Network Infrastructure Technologies

This subject covers the basic theories of routing and switching and their applications in a networking environment. It focuses on IP addressing scheme, routing protocols, basic access control lists, switching architectures and operation of a Wide Area Network (WAN). It provides opportunities for you to interconnect networks separated over large geographical area.

## ECC2013 Mobile Device Applications Development

This subject covers the development of applications on mobile and wireless computing platforms. It provides you with an overview of Mobile Web and Mobile Applications, their importance and benefits, as well as the technologies and methodologies for their development, such as the architectures, frameworks, standards, programming languages, design process and tools.

## ECC3009 Network Integration

This subject covers networking technologies used in the design and implementation of large scale networks. Advanced Internet Protocol (IP) address management and optimisation techniques are utilised in the scalable routed and switched networks. Simple security tools are introduced to control the flow of network traffic. Next generation Internet Protocol version 6 (IPv6), which will replace the version 4 in future, will be incorporated to deal with the increasing demand for dedicated IP addresses.

## ECC3010 Network Security System

This subject highlights the security risks commonly encountered by computer networks in a small or medium sized business (SME) environment. It covers the concepts and implementation of network security tools such as Authentication, Authorisation and Accounting (AAA), firewall, Virtual Private Network (VPN) and network device hardening, which mitigate the security threats to most computer networks in SMEs.

## ECE2007 Fuel Cell & Energy Storage Systems

This subject covers the fuel cell technology and the control systems associated with their balance of plant (BOP). The integration and functions of an energy storage system with the fuel cell system will also be discussed.

## ECE2008 Solar Cell & System

This subject introduces you to the operating principles and applications of solar cells. Topics include solar cell and panel characteristics and solar photovoltaic (PV) system design, installation and maintenance. The emphasis will be on standalone and grid-connected PV power generation systems.

## ECE3005 Industrial Sustainability & Energy Efficiency

This subject covers the techniques used in process control and optimisation of energy efficiency in industrial processes. Enforcement of new requirements such as the Energy Conservation Act and implementation of relevant standards such as ISO50001 will also be discussed.

## ECS1005 Communication & Information Literacy

In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the **Message, Audience, Purpose and Strategy** (MAPS) when writing and delivering oral presentations.

## ECS1006 Workplace Communication

In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying **Message, Audience, Purpose and Strategy** (MAPS) will be covered.

## ECS1007 Persuasive Communication

In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **Message, Audience, Purpose and Strategy** (MAPS) will also be applied when engaging in verbal and written communication.

## ECT2004 Instrumentation & Computer Control

This subject introduces you to the fundamentals of instrumentation and measurement. Topics include measuring devices, final control elements, controller principles, single and multiple loop control systems and process documentation. Basic programming skills in simulation, real-time control, data transfer from sensors to computers and computer-to-computer communication are also covered.

## ECT2005 Circuits & Control Systems

This subject introduces you to various concepts involved in the study of circuits and control systems. It provides you with the theories and practical knowledge of transient and steady state response of second order circuits, the structure of feedback control systems and stability analysis. The controllers and compensator design techniques used in control systems are also discussed. You will learn all the necessary skills to simulate, interpret and analyse the performance of various control systems and electric circuits.

## ECT3002 Analytical Robotics

This subject introduces you to various concepts involved in the study of robotic systems. It begins with an introduction to the different types of robotic systems, mechanical forces and the law of motion, and the different types of actuators and sensors, as well as their application in robotics. Basic kinematics is also discussed to determine the pose and orientation of the object in space. Various mobile robot design considerations and embedded system design are also explored to emphasise the application aspects.

## ECT3004 Efficient Drive & Control Systems

This subject covers the optimisation of motor drive systems with effective integration of Supervisory Control and Data Acquisition (SCADA) systems for efficient performance and energy saving.

## EBD1004 Virtual Design & Facility Planning

This subject develops skills to visualise facility design and planning. You will learn facility planning concepts with the use of digital tools for visualisation, simulation and documentation. The knowledge gained can be applied to create virtual design projects for all disciplines in the future.

## EDM1001 Modelling & Animation

This subject provides you with the basic theory and skills for 3D animation production. You will be equipped with an understanding of the fundamentals of how animation software tools work, and gain experience in completing a 3D animation production development cycle.

## EDM1002 Fundamentals of Digital Media Processing

This subject equips you with the fundamental knowledge of image, texture and audio editing using media processing techniques. These techniques are necessary basic building blocks in interactive digital media content development. Basic video editing skills will also be taught. The subject emphasises practical-based learning, through which you will acquire the essential knowledge and skills.

## EDM2004 Advanced Digital Animation & Special Effects

This subject equips you with the knowledge and skills in applying advanced tools and techniques in 3D animation. It uses a practice-oriented approach to train you to rig a character and create physically realistic object motion, to apply visual effects techniques to create natural environment and phenomena with appropriate lighting and advanced render setting, and to create texture on 3D models directly.

## EDM2005 Interactive Digital Media Project

This subject provides you with an opportunity to integrate knowledge learned in previous semesters to develop an Interactive Digital Media (IDM) production through working on a project in a team. Emphasis will be placed on your ability to be creative and work in teams, as well as problem-solving skills. The nature of the project could either be software or hardware, or a combination of both.

## EDM2007 Fundamental 3D Interactive Digital Media

This subject provides you with the knowledge and hands-on experience in creating interactive 3D applications. Topics include 3D object creation, modelling, and scene composition.

## EDM2010 3D Modelling for Virtual Reality

This subject covers theories and skills for 3D modelling and basic animation. You will be equipped with an understanding of the fundamentals of how 3D software tools work, and gain experience in completing a 3D modelling and animation production development cycle. The subject uses a practice-oriented approach to equip you with the skills to develop 3D assets, create a virtual environment and enhance realism with appropriate lighting, texturing techniques and advanced render setting.

## EDM3002 3D Real-time Visualisation

The subject equips you with the skills and techniques to be competent in creating 3D real-time photorealistic interactive media content. Topics include the use of special rendering techniques, High Dynamic Range Imaging (HDRI) techniques, Low Polygon and High Polygon Modelling, Global Illumination, Texture Baking, and their corresponding methodology in reducing latency in real time 3D scenes.

## EDM3003 Interactive 3D Display System

This subject provides you with the necessary knowledge of how various input and output interactive systems work. These systems include stereoscopic, auto-stereoscopic and holographic displays, pinch gloves, wands, as well as passive and active sensors. You will also learn how to use and apply these applications in various scenarios.

## EDM3004 Interactive Programming for Virtual Reality

This subject covers the fundamental theories and practical skills of 3D interactive design and development. It includes topics such as scripting for 3D assets with behaviour and interactivity, lighting, audio, animating 3D objects, user interfaces and deployment of the interactive applications. You will build upon the foundational skills you have acquired in 3D modelling, texturing and programming from previous semesters to create interactive and real-time applications such as Virtual Reality and Augmented Reality.

## EDR1003 Engineering Drawing

Engineering drawing is essential for communicating engineering design. This subject will introduce you to the understanding and preparation of two-dimensional mechanical engineering drawings with the use of both manual and Computer Aided Design/ Drafting (CAD) software. You will also learn general methods of dimensioning according to international and local standards.

## EED1001 Electronic Prototyping

This subject introduces you to the use of hand tools and standard laboratory equipment for the construction and testing of electronic prototypes. You will also learn to identify basic electronic components for project work and how to use them to build electronic devices.

## EED1002 Printed Circuit Board Design

This subject provides you with the basics in designing a printed circuit board (PCB) through the use of a PCB design software. You will learn the various parts of a PCB and the terminologies used, and understand the various processes involved in the design and fabrication of a PCB. You will also have the opportunity to assemble and test a PCB prototype and apply basic troubleshooting skills to isolate faults in electronic circuits.

## EED2007 Mechatronics Design Project

This subject covers the basic principles in the development of a Mechatronics product design through hands-on experience. Project ideas will be developed using Computer Aided Design, and you will then build the designs using the proper prototyping techniques. Microcontrollers will be used to control the various functions of the product.

## EED2010 Aerospace Design Project

This subject equips you with the skills to design an aerospace product using current and emerging technologies. It is designed to expose you to the multi-disciplinary aspects of aerospace engineering in which domain areas such as airframe and propulsion are linked by cross-cutting areas such as digital manufacturing and computer programming in the development of a product such as an unmanned aerial vehicle. This is a flexible project-based learning subject in which the theme is changed regularly to keep abreast of the latest trends and technologies.

## EED3009 Special Project 1

The focus of this subject is on the application of your existing domain knowledge to develop a deliverable. The subject will introduce you to new skills and knowledge specific to the project, as and when required.

## EED3010 Special Project 2

This subject provides opportunities for you to apply your acquired knowledge and skills, along with your fundamental and in-depth knowledge from different subjects, in designing, developing, and implementing a well-engineered project solution.

## EED3011 Higher Engineering Skills 1

Higher Engineering Skills 1 and 2 provide opportunities for you to develop different engineering skills – these skills could include hardware and software design and developmental skills, testing and measurement skills. The focus is on the practical aspects of engineering and the development of deft hands-on skill-sets. Creative and innovative ideas will also be encouraged. Exposure to new technologies, which may not be covered in the curriculum, will be introduced when necessary.

## EED3012 Higher Engineering Skills 2

See Higher Engineering Skills 1 above.

## EED3013 Rapid Prototyping & Model Making

Using various advanced rapid prototyping methods as well as basic processing of wood, metal and plastics, you will acquire a working knowledge of constructing physical 3D models for product presentation.

## EED3014 Advanced Skills Practices

This subject provides opportunities for you to integrate and apply your knowledge for high level competitions or projects in practical learning situations. The project or skills training can involve substantial work related to either a high level industrial program or an end-user product, as well as advanced training to develop technical abilities to execute specific tasks competitively. It could also involve the development, evaluation of workable designs and implementation of ideas related to an innovative product suitable for manufacturing, or an improvement to existing products or processes. You may be required to work on software, hardware, or a combination of both hardware and software.

## EEE1001 Circuit Analysis

This subject provides a good foundation in DC and AC network analysis. You will learn the basic principles of electric circuitry and how to apply circuit theorems to analyse DC and AC networks.

## EEE1002 Electronic Devices & Circuits

This subject covers the theory and practical knowledge of electronic devices such as diodes, bipolar junction transistors, field effect transistors and their applications. It also focuses on the fundamentals of operational amplifiers and their applications, and the rudiments of circuit troubleshooting and testing.

## EEE1003 Digital Fundamentals 1

This subject provides you with basic knowledge of digital electronics and circuits. Topics include number systems, operations and codes, logic gates, Boolean algebra and logic simplification, combinational logic, functional blocks, latches and flip-flops.

## EEE1004 Digital Fundamentals 2

This subject builds upon the fundamentals of digital electronics acquired in Digital Fundamentals 1. It introduces you to the digital concepts of the various building blocks in a computer's digital system. You will acquire the theoretical and practical knowledge of registers, counters, memory devices, and conversions between digital and analogue signals and integrated circuit technologies. Digital troubleshooting techniques are also explored in the laboratory work.

## EEE1005 Digital Fundamentals

This subject provides you with a basic knowledge of digital electronics. You will learn the theoretical and practical knowledge of fundamental digital concepts and basic building blocks of digital electronic circuits. Topics covered include number systems, Boolean algebra and combinational logic, sequential logic and memory devices.

## EEE1006 Engineering Fundamentals

This subject provides you with a strong foundation in basic engineering concepts, electrical principles, circuit theorems, digital electronics and electronic devices.

## EEE2005 Integrated Circuit Applications

This subject covers the applications of common integrated circuits. The fundamental concepts of operational amplifiers and their applications will be taught. You will learn how to use operational amplifiers to design clippers, clampers, comparator circuits and active filters. The applications of the 555 timer and voltage regulators will also be discussed.

## EEE3004 Power Electronics & Drives

This subject is an introduction to different types of motors, power electronic devices and power converters, and in particular, how they are applied in motor drive systems. The power semiconductor devices typically employed in such circuits and the required thermal management of these devices are explored.

## EEE3005 Advanced Electronics & Communication

This subject covers essential concepts in electronics to equip you with knowledge and skills in designing advanced electronic circuits and systems for processing analogue signals. It introduces the basic principles and behaviour of analogue signals and signal transmission in electronic communication systems.

## EER1001 Electrical Services for Facilities

This subject provides the basic theoretical and practical knowledge for the design of electrical distribution and installation in facilities. It also introduces you to the safety requirements and regulations governing electrical distribution and installation.

## EER2001 Electrical Systems & Power Distribution

This subject covers the operation of a power distribution network system in the transmission and distribution of electricity. The topics include system earthing, circuit breakers, fuses, cables, and transformers. The different types of network protection scheme and calculations of fault will also be taught.

## EER3002 Electrical Diagnostics & System Integration

This subject covers the technical requirements and design considerations that are critical for system integration of modern electrical systems with renewable energy sources as well as energy storage systems. Advanced metering infrastructure and major control principles in smart grid and advanced diagnostics techniques for evaluating failure modes in electrical systems will also be covered.

## EFM1002 Workplace Safety & Health for Facility Management

This subject gives you an overview of a safe working environment in the area of facilities management. You will be equipped with the skills of identifying and reducing workplace related risks at source, and you will also be exposed to common practices taken in the industry to ensure a safe workplace.

## EFM2004 Contract Management

This subject covers the knowledge of contract management that is aligned to the practices in the real estate industry. You will learn about all aspects of contract management which includes administration, procurement procedures, valuation of services and products, tenant management, and service delivery.

## EFM3001 Sustainable Facility Management

This subject covers the roles of Facility Management (FM) in environmental sustainability. It will cover the integration of both areas so that you can see a connection between reducing carbon footprint and emission of the assets/properties under effective and thoughtful FM. It will also examine the policies and practices that FM should implement to achieve the said goals. The subject will describe the framework and strategies for achieving 'greener' results at the inception, design, construction to operational stage of a building. The subject will also provide an overview of the standards or rating systems that can be used to gauge the attainment of the sustainable goals.

## EGB1001 Introduction to Green Development

This subject covers the fundamentals of a green development specifically within the local green building sector. You will learn the concepts, development and trends in the design and management of a green building. There will also be an overview of the current trends of green buildings.

## EGB2002 Air Conditioning & Mechanical Ventilation

The Air Conditioning and Mechanical Ventilation (ACMV) system is one of the most important systems of a building and represents a significant portion of its total energy consumption. The subject will cover the use of psychrometric chart and pressure enthalpy diagram to facilitate the understanding of the working principal behind the air conditioning system. Various types of ACMV systems and energy saving strategies will be explored.

## EGB2003 Hydraulics & Drives

This subject is designed to expose you to hydraulic and motor-driven systems used in buildings. It starts with introduction to fundamentals of fluid mechanics (Benoulli's and continuity equations), losses in fluid flow in pipes and follows by sizing of pumps. The motor-driven systems portion of this subject includes fundamentals of electric motors, selection and sizing of motors for different applications. Efficiency of motor-driven systems and motor installation are explained at the end.

## EGB2004 Tropical Architecture for Sustainability

This subject introduces you to passive design principles in tropical architecture, and will showcase all the examples of sustainable design from different parts of Asia from both past and present for contrast and comparison. Both traditional as well as cutting-edge technologies will be discussed, with emphasis on how materials are used in solving environmental problems. Topics covered include Tropical Architecture, Southeast Asian Indigenous Buildings, Late-modern Architecture and Green Buildings. Issues regarding contemporary urbanisation and sustainability will also be explored.

## EGB2005 Green Building Modelling & Simulation

This subject provides you with an in-depth modelling and simulation concept of green buildings. Starting with climate analysis, you will be taken through hands-on stage-by-stage simulation tasks to demonstrate the impact of solar geometry on the building façade and indoor spaces followed by the passive cooling and ventilation strategies that are relevant to tropical cities such as Singapore. The simulation portion of this subject includes solar radiation analysis, shading design, lighting design, overshadowing, site analysis and the use of computational fluid dynamics (CFD) to analyse the performance of a naturally ventilated building.

## EGB3003 Total Building Performance

This module provides an overview of the key factors that affect the performance and efficiency of buildings. It introduces the performance mandates of a building and focuses on integrated approaches to meet the building performance criteria. Topics include spatial performance, thermal comfort and evaluation, air quality and acoustic performance, lighting aspects and building integrity performance.

## EGB3004 Sustainable Design

This subject covers architectural design concepts used in building analysis of sustainable or green facilities. You will learn about the processes and practices of incorporating environmental and sustainable issues into integrated planning and the designing of green facilities. Principles for human-habitat and concepts of passive design will be applied in solving practical problems related to buildings. Air-flow simulation, sketches of models and charrettes will be used to visualise the design strategies and solutions, so as to effectively design spaces that can provide optimal year-round comfort and reduce energy consumption while limiting the impact on the environment.

## EGS1002 Global Studies

This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.

## EGS1003 Managing Diversity at Work

You will examine your own identity, study different forms of diversity and apply strategies to inspire positive collaboration in a diverse workplace. Through a residential stay, you will have the opportunity to experience living and working with peers from different backgrounds.

## EGS1004 Global Citizenship & Community Development

This subject highlights the inter-connectedness of the world today, bringing about what it means to be a Global Citizen. You will gain an awareness of the impacts of globalisation and the concepts of social responsibility and sustainable community development. This subject also challenges you to be actively engaged in a social or environmental project.

## EGS1005 Expressions of Culture

Whether telling stories, building monuments or celebrating rites of passage, expressions of culture are at the core of cultural diversity. In this subject, everyday objects, artistic creations and popular culture are explored as ways of understanding the values and beliefs of a society. You will explain the role of cultural heritage stakeholders and learn to conduct cultural story-telling. By taking this subject, you will benefit by acquiring a greater understanding and appreciation of the complexities surrounding our cultural assets.

## EIN1001 Innovation & Entrepreneurship

The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. You will first be introduced to the Design Thinking framework and learn how to develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. In addition, commercial awareness will be imbued in you through the LEAN Startup framework, idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding/crowdsourcing avenues.

## EMA1002 Engineering Mathematics 2

The subject introduces the concept of calculus. Differentiation and integration techniques will be covered. These concepts will be used to formulate and solve mathematical problems. Various differentiation techniques (e.g., chain rule, product and quotient rules), and integration techniques (e.g., substitution, use of the mathematical table, integration by parts, partial fractions decomposition) will also be covered.

## EMA1003 Engineering Mathematics 1

This subject teaches pre-calculus techniques required for an engineering course. It trains you in engineering problem-solving approaches using the appropriate mathematical tools. Topics such as simultaneous equations, matrices, trigonometric, exponential and logarithmic functions, complex numbers and vectors will be covered.

## EMA2003 Engineering Mathematics 3

This subject introduces ordinary differential equations and approximation using the Maclaurin series and Fourier series. You will learn how to formulate engineering problems using first and second order differential equations and to solve initial value problems using techniques such as Laplace transforms. The application of statistics – Hypothesis Testing – will also be taught.

## EMA3001 Higher Engineering Mathematics

The subject introduces mathematical concepts and techniques used in advanced engineering courses. You will learn topics in calculus such as limits and continuity, infinite series, improper integrals, multiple integrals, higher order differential equations, 2D and 3D analytic geometry, and partial differentiation.

## EMC2001 Microcontroller Technology

This subject provides you with a working knowledge of embedded systems, with emphasis given to the design and development of a microcontroller-based application that involves hardware and software interfacing. The subject also covers the features of evolving microcontrollers that support Internet of Things (IoT) applications. Modular programming technique is also emphasised as you work on your program solution.

## EMC2006 Internet of Things Project

This subject equips you with the knowledge and skills required for implementing the new paradigm in which things interact with things, people and the Internet or information systems. The subject provides knowledge, skills and design approaches in using embedded systems, sensors, actuators and appropriate data communication technologies such as sensor networks, edge and cloud computing to achieve such interaction. A systems engineering approach will be adopted, under which you will review key technologies from prior learning for the different levels of the IoT (Internet of Things) stack and figure out how these different levels could be integrated to form complete IoT systems.

## EMC3002 Embedded Control & Applications

This subject is an extension of the subject "Microcontroller Technology". The subject provides you with a working knowledge of the features and characteristics of most of the internal peripherals in the microcontroller, such as interrupts, Timer, PWM and ADC, in order to design and implement an embedded system. The subject also covers the power management modes in microcontrollers essential for IoT applications. Modular programming technique is also emphasised as you work on your program solution.

## EMC3005 System & Network Integration

This subject equips you with the knowledge and skills essential for integrating heterogeneous subsystems into a smart system. The subject will adopt a systems engineering approach to examine current and emerging trends, key techniques and strategies for developing system and network integration solutions. You will be exposed to integration challenges such as legacy integration, human-system integration and system of system integration. Commonly used industrial connectivity standards and fieldbuses, as well as relevant hardware and software interfaces suitable for such integration, will also be covered. A mini-project will provide opportunity for you to apply your prior learning on embedded systems and programming along with those acquired in this subject to solve a system integration problem.

## EMD2001 Medical Electronics

This subject introduces you to the fundamental instrumentation theories for biomedical applications and design requirements for the measurement of bio-signals as well as signal processing techniques used in biomedical instrumentation. Topics include electrodes and transducers, bio-potential measurements, amplifier basics, differential and instrumentation amplifiers. Electronic feedback systems, filter designs, noise and electromagnetic interference issues are also discussed.

## EMD2002 Medical Devices

This subject provides you with knowledge on the working principles, safety and reliability issues related to the use of medical devices in the healthcare sector. You will learn the fundamental concepts of diagnostic devices, lifesaving and support devices, critical care devices and some of the specialised therapeutic devices used in pain relief and rehabilitation.

## EME1002 Statics & Strength of Materials

This subject consists of two main areas: the fundamentals of statics and strength of materials. Fundamentals of statics provide an introduction to the basic concepts of bodies in statics, whereas strength of materials introduces the methodology for designing structural members subjected to various loading conditions.

## EME2004 Programmable Automation

This subject provides you with the fundamentals underlying the contemporary manufacturing automation environment. Four main topics are covered in this subject; namely pneumatics, electro-pneumatics, programmable logic controllers and factory automation. You will gain the essential knowledge of the working principles and applications of automation equipment related to the topics covered, followed by an overview of how to automate production processes to achieve quality and high productivity. Both hardware and software links between the main factory automation components are introduced.

## EME2007 Machining Technology

This subject introduces you to the various manufacturing processes including computer-controlled processes and you get hands-on practice with conventional and Computer Numerical Control (CNC) machines. You will also learn about Computer-Aided Design and Manufacturing (CAD/CAM) system. Safety aspects are emphasised throughout the workshop sessions. You will acquire the fundamental knowledge and skills in designing for the manufacturing sectors such as the tool and die industry.

## EME2008 Principles of Dynamics

The application of dynamic systems theory can be seen everywhere in our daily lives, from vehicles moving on the road to planes flying in the air. In this subject, you will learn the fundamental principles of dynamics and apply them to the analyses of bodies in motion. The main topics covered include Newton's laws of motion, the principle of work and energy, the principle of impulse and momentum, gyroscopic principles and periodic motion.

## EME2009 Thermodynamics

This subject equips you with the basic knowledge in thermodynamics, concepts of the temperature scales and measurements, the First Law of Thermodynamics, Ideal Gas Laws, Second Law of Thermodynamics and heat energy calculations using a P-V diagram. The syllabus is based on the guide for relevant topics on thermodynamics listed in the Singapore Airworthiness Requirements (SAR-6) Module 2 "Physics". Knowledge of this subject allows you to understand the mechanisms of heat transfer and how gas turbine engines work.

## EME2010 Fluid Mechanics

This subject provides you with fundamental knowledge in applied mechanics of fluids under incompressible viscous flow conditions. It covers fluid properties, fluid statics, fluid in motion, governing equations, viscous flow through duct, minor losses, multiple-pipe system, drag and lift, and compressible flow. Knowledge of this subject will enable you to appreciate the aerodynamics of an aircraft and fluid-flow concepts in turbine engines and aircraft systems.

## EME2011 Engineering Design

This subject applies elementary engineering principles to the design and selection of common mechanical elements and systems. You will have the opportunities to explore topics such as material selection, mechanical joining, mechanism, motion transmission and design for machining and assembly. Computer aided Design (CAD) tools will be used to reinforce the learning of this subject

## EMF2003 Medical Device Manufacturing Practices

This subject provides you with the fundamental knowledge of, and introduces good manufacturing practices in, the design and manufacturing of medical devices and pharmaceuticals. It covers design control, equipment maintenance, contamination prevention, qualification and validation, non-conformance handling as well as technical documentation.

## EMF3002 Manufacturing Logistics & Simulation

This subject covers the concept of logistics in manufacturing, manufacturing planning, purchasing, warehousing, and simulation. PC software will be used to enhance your learning.

## EMF3004 Automation & Machine Vision

This subject covers the fundamentals of factory automation systems. It provides you with the essential concepts and background of industrial automation, machine vision and their applications, as well as their integration into a complete manufacturing system.

## EMI2001 Semiconductor Physics & Devices

The subject covers the physics of semiconductors. The motion of electrons and holes in semiconductors is discussed. The fundamental principles underlying the formation of a p-n junction, different types of contact to semiconductors and a Metal Oxide Semiconductor (MOS) capacitor are explained. The subject also covers the operating principle of a photovoltaic cell and a Metal Oxide Semiconductor Field Effect Transistor (MOSFET).

## EMI2002 Wafer Fabrication Process Technology

The subject covers the various process technologies used in semiconductor IC wafer fabrication, such as oxidation, diffusion, ion implantation, thin film deposition, photolithography, and etching. For each process technology, it covers definition, process mechanism, process equipment, process parameters and process application. You will also be given practical training which involves carrying out the semiconductor wafer fabrication process, evaluating the process outcomes as well as operating the various equipment used in the cleanroom. Technology Computer Aided Design (TCAD) software will also be used to simulate the wafer fabrication.

## EMI2005 IC Packaging & Failure Analysis

This subject covers the technologies and processes of IC assembly as well as IC failure analysis. The IC assembly includes various processes such as die attachment, wire bonding and encapsulation. The latest advancements in IC packing such as flip chip and chip scale packaging will be discussed. IC failure analysis includes various techniques such as optical microscopy, X-ray imaging and electron microscopy.

## EMI2008 IC Process Integration

This subject covers the design of photo-masks, sequencing of processes to form a process flow, technologies in processing of solid state devices, isolation and interconnection structures, application of test structures for process monitoring as well as the characterisation and functionality testing of basic solid state devices.

## EMI2009 IC Layout Design

This subject covers the techniques of Integrated Circuit (IC) layout starting with the fundamental relationship of the channel width and channel length dimensions of a Metal- Oxide Semiconductor Field Effect Transistor (MOSFET) to its characteristics. The design steps and layout of MOS transistors, basic Complementary MOS (CMOS) logic gates and static CMOS circuits will be explored. Layout techniques and considerations for power supply distribution, yield improvement and transistor matching are also discussed. The importance of layout design rules and the impact of Nano CMOS device dimension on design will also be highlighted. Computer Aided Design (CAD) and IC Design tools are used for practical experience.

## EMI3009 Microelectronics Test & Measurement

This subject covers the test and measurement of semiconductor devices, a process integral to the manufacturing of semiconductor devices. Equipment and related software tools for testing and debugging of digital and mixed-signal devices are used for practical experience.

## EMI3005 Cleanroom Equipment & Technology

This subject introduces contamination control in a cleanroom and the factors to control the environment. These include wafer plant facilities, process equipment and vacuum technology. Practical training includes appreciating the environment in the cleanroom, identifying the various components of a deionised water purification plant and operating vacuum pumps and systems.

## EMP3002 Major Project

The Major Project gives you an opportunity to integrate and apply your knowledge in a practical learning situation. Besides research, design and project management skills, the emphasis will also be on innovation, creativity, teamwork and enterprise.

## EPH3001 Principles of Photonics

This subject explores the fundamentals of photonics theory including concepts and application of photonics. It delves into the laws of reflection and refraction, principles of wave optics (including interference, diffraction and polarisation), fundamentals of fibre optic theory, principles of lasers and laser safety, and the basics of holography.

## EPH3002 Optical Communications

This subject delves into the laws governing transmission of light through fibres, classification of fibres, loss mechanisms and dispersion in fibres, optical modulation, multiplexing and de-multiplexing, as well as the procedures used in the design and analysis of an optical communications system.

## EPH3003 Optical Devices

This subject equips you with the knowledge and concept of optical devices. It covers the structure and characterisation of coherent and non-coherent optical sources, namely: light emitting diodes and laser diodes, optical detectors, optical amplifiers, passive optical devices, modulators, switches, optical integrated circuits, sensors and photonic devices for imaging, display and storage.

## EPZ1001 Introduction to Processes & Systems

This subject provides you with a basic understanding of the concepts, tools and approaches to business process management as well as the context in which these approaches are made within larger systems of business organisations or entities.

## EPZ3001 Customer Relationship Management

This subject provides you with an in-depth view of Customer Relationship Management. It covers the basic concepts of CRM, leading to implementation of strategies within an organisation. Focus will be on using technologies to adopt a customer-focused approach and strengthening customer relationship.

## EQM2001 Process Management & Innovation

Process Management is the management of business as a series of processes resulting in the creation/ improvement of products and services that customers need. This subject provides the understanding of concepts, theories and methods a team leader needs to initiate and carry out process improvement activities. Key topics include process management, analysis, improvement, and innovation.

## ESC1003 Chemistry

This subject provides you with an understanding of the fundamentals of chemistry concepts and applications useful in the bioengineering field. Topics covered include the principles, theories and applications of physical, inorganic and organic chemistry, ranging from atomic structure and electron configuration, stoichiometry, the periodic table, chemical bonding, equilibria, electrochemistry, and thermochemistry, to topics of organic chemistry covering the hydrocarbons, haloalkanes, the hydroxy, carbonyl and carboxylic acids compounds. Essential practical sessions on chemical experimentation are also covered.

## ESC1004 Engineering Physics

This subject covers a spectrum of fundamental physics laws and concepts applicable to the scope of engineering physics. It covers a few core areas including Mechanics, Energy, Thermal Physics, Electromagnetism, Waves, as well as Optics and Materials. This subject provides a foundation for a further in depth study of the various engineering disciplines.

## ESE1006 Computer Programming for Problem Solving

This subject covers the process of decomposing a problem into a sequence of smaller abstractions. The abstractions are implemented in software in a structured top-down approach. Software implementation includes the process of designing, writing, testing, and debugging program code.

## ESE1007 Engineering Analytics

This subject covers the basic knowledge and skills needed for collecting, cleaning, and sharing data. You should be able to apply techniques for data visualisation to facilitate more accurate and effective data-driven decisions. Basic methods of descriptive and predictive analytics will be introduced and you will gain hands-on experience through the use of analytics software tools in case studies and problem demonstrations.

## ESE2004 Object-Oriented Programming

This subject provides you with a good understanding of Object-oriented programming principles together with a good understanding of how Object-oriented software is designed. The introduction of Object-oriented programming concepts will go hand in hand with the introduction of Object-oriented Design methods and practices through the use of Unified Modelling Language (UML). Essentially when you are introduced to a new programming concept, you will learn to model the newly introduced programming concept. As the subject progresses and the complexity of the programs increase, more software design UML modelling tools will be introduced.

## ESE2008 New Media Marketing Applications

This subject gives an Introduction to new media marketing, the User Experience (UX), as well as the development and use of analytics measurement in new media. The subject will focus on the development of applications for Facebook.

## ESE3006 ASP.NET Web Programming

This subject focuses on providing appropriate knowledge and skills to develop ASP.NET Web applications on the .NET platform. After an introduction to different .NET related tools and languages, the procedure to create Web Form is demonstrated. Data accessing using ADO.NET is then covered followed by the use of web tools to enhance and improve functionality. Finally, the method to deploy ASP.NET web applications in mobile devices will be introduced using online emulators and HTML5 tools in Visual Studio.

## ESE3010 Database Management System & Design

This subject focuses on the design and creation of database e.g. using the Oracle Database System. The topics covered ranges from the initial design of the database using modelling tools (Entity-Relationship model using Unified Modelling Language), to the refinement of the models using Normalisation techniques. It will also include the learning of the database programming language, Structured Query Language (SQL), and JavaServer Pages (JSP) for web page creation, as well as Java Database Connectivity (JDBC).

## ESI3001 Student Internship Programme

The on-the-job training nature of the programme allows you to gain some industrial experience. Through this programme, you will be exposed to the work environment so that you can better appreciate and understand the problems and issues at the work place. The content and scope of learning varies from organisation to organisation. However, it is envisaged that after the programme, you would have, in general, developed your communication and interpersonal skills as well as the right work ethics, and also become more mature, confident and independent, and have a more realistic expectation of what a working environment is like.

## ESZ1001 Systems Concepts & Tools

This subject provides you with the basic knowledge and skills to apply systems thinking language and modelling approaches to solve real-world issues. Tools that will be introduced include causal loop diagrams, archetypes and system dynamics. You will also learn to use a software to model issues using the systems thinking and modelling approach. The relationship between systems thinking and the learning organisation will also be discussed.

## ESZ1002 Quantitative Methods

This subject introduces basic statistical concepts. Topics include descriptive statistics, probability distributions, estimation of population parameter, hypothesis testing, and simple linear regression.

## ESZ2001 Decision Analysis

This subject provides an introduction to the decision-making process and the models applicable to solve various decision problems. It covers methods and techniques for decision making such as linear programming, transportation model, network models and decision trees.

## ESZ2002 Process Optimisation & Improvement

This subject provides an overview on the concepts of quality improvement and process optimisation. It establishes the fundamental to quality concepts. You will learn how to analyse statistical control results, experimental designs, variations in processes and applying improvement techniques. Practical sessions using software applications will be integrated to enhance your learning.

## ESZ3001 Supply Chain Management

This subject covers the concept behind supply chain management in competitive business survival and key strategic drivers that improve supply chain management performance of an enterprise. It also covers the importance of managing inventory, selecting appropriate distributing and transportation network.

## ESZ3002 Systems Modelling & Simulation

This subject provides you with an introduction to fundamental concepts of system modelling and simulation. Topics include basic model development, input analysis, modelling and statistical analysis. A simulation software is extensively used as a vehicle to enhance the understanding and practical applications of the subject.

## **GCC1001 Current Issues & Critical Thinking**

This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals.

## **LEA1011/1012/1013 Leadership: Essential Attributes & Practice (LEAP)**

LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.

## **LSW1002 Sports & Wellness**

This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.

## **MCR1001/MCR1002/MCR1003 Career Readiness**

This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. It aims to cultivate the necessary attitudes, skills and knowledge to conduct yourself professionally, adapt and respond to the changing job market environment.

## **TGL1001 Guided Learning**

This is a subject where you will be free to pursue an area of interest through a self-directed approach, guided by staff. You will be expected to demonstrate a sense of curiosity for learning, initiate an opportunity to acquire knowledge and skills, and reflect on your learning journey throughout the subject.



# School of Humanities & Social Sciences

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The School of Humanities & Social Sciences (HSS) promises a holistic and student-centred curriculum that will groom dynamic and robust professionals for the rapidly evolving world. Here, students are presented opportunities to put theoretical learning into practice and acquire hands-on experience through student projects, student internships and joint collaborations with industry.

HSS – in its offer of people-oriented specialisations – also believes in fostering a caring culture in an academic environment. The School has a team of highly experienced and dedicated academic staff committed to facilitate and optimise student learning. It is the ultimate aim of HSS to help each graduate make a meaningful difference in their chosen career.

# Centres of Excellence

## Centre for Applied Gerontology (CAG)

The Centre responds to the needs of Singapore's ageing situation and takes an inclusive and universal approach in its study and research. It aims to provide a better understanding of the ageing process and its implications and seeks to find innovative ideas and solutions to issues related to the larger context of ageing in the society. It is interdisciplinary in approach and collaborates with the Schools and other research centres in TP, and the industry and community in response to its mission and commitment to Temasek Polytechnic's vision to be a world class institution reputed for its programmes, applied research and learning.

## Centre for Applied Psychology (CAP)

The Centre for Applied Psychology (CAP) is housed in Temasek Polytechnic's East Wing, and serves as a Learning Enterprise. Through this Learning Enterprise, students from the Diploma in Psychology Studies are trained in the technical skills associated with behavioural and psychological research, as well as the administrative and logistical processes associated with such research projects. CAP also serves as an applied research centre through which staff and students from the Diploma in Psychology Studies engage with industry partners on collaborative projects. These projects provide real-life learning opportunities for students beyond the classroom, and also opportunities for staff members to engage in consultancy, thereby keeping themselves updated on current industry trends.

## Collaboration with NIEC

With the recent announcement by Prime Minister Lee Hsien Loong in August 2017, a centralised institute – National Institute of Early Childhood Development (NIEC) was set up to train early childhood educators and to raise the standing of the profession. The Diploma in Early Childhood Studies (ECS) will be awarded by National Institute of Early Childhood Development (NIEC) in collaboration with Temasek Polytechnic. With this collaboration, students can look forward to receiving support in pedagogy training and research through the National Institute of Education's Centre for Research in Child Development.

# Early Childhood Studies



Do you imagine yourself spending time with young children in a dynamic and vibrant preschool classroom, dipping your fingers in paint and making towers with building blocks? Do you find satisfaction in getting involved in the lives of young children and helping them rise to life's challenges?

If you do, then this course is for you. The Diploma in Early Childhood Studies (ECS) is awarded by National Institute of Early Childhood Development (NIEC) in collaboration with Temasek Polytechnic which qualifies every ECS graduates to teach in any pre-school in Singapore.

Led by lecturers with rich industry and early childhood teacher training experience, this course will help you gain an understanding of the principles and practices of early childhood care and education. In addition, the course provides a strong grounding in psychology. You will be equipped with knowledge, skills and attitudes to become a competent early childhood educator. There are also opportunities for exposure to early childhood practices outside Singapore via optional overseas study trips.

The Early Childhood Development Agency (ECDA) Training Award is available for students whom are passionate about working with children and looking forward to have a career in the early childhood field.



Preschool is important to give our children a good start and the best chance to succeed in life. In the past, we started at Primary 1, when the child is seven. But now we know we have to begin much earlier, not to give children a head-start in Primary 1, but to build sound foundations for them for life. At an early age, there are specific windows in a child's development and you must catch that window or you miss it... a good preschool will help parents to make the most of these formative windows of a child's development.

Mr Lee Hsien Loong  
Prime Minister of Singapore  
Extract of National Day Rally Speech 2017

## Career Opportunities

Graduates from this course can work as early childhood educators or in children-related industries. With further studies and training, a wide variety of options are available in the following areas: child support and family services, curriculum specialist, writer of children’s literature, event planner for children’s events, and training of early childhood professionals.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals	: 36 credit units
Diploma Subjects	
Core Subjects	: 72 credit units
Elective Subjects	: min 12 credit units
Option Subjects	: 12 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1)	Grades 1 - 6
Mathematics (E or A)*	Grades 1 - 6
Any three other subjects, excluding CCA	Grades 1 - 6

*\*Students who scored D7 in Mathematics may apply for the course, provided they have GCE O Level passes (grades 1 to 6) in five subjects, including English.*

*To be eligible for selection, applicants must have also sat for one subject listed in the first group of relevant subjects and another different subject listed in the second group of relevant subjects for the ELR2B2-A Aggregate Type.*

*To be granted teacher certification status to teach up to kindergarten levels by Early Childhood Development Agency (ECDA), new teachers must have obtained a minimum grade of B4 for EL1. Those who obtain C5 or C6 in EL1 are given two years from the point of teacher registration to obtain either a B4 or a minimum band of 6.5 in the International English Language Testing System (Academic).*

*All applicants will also be required to pass a medical examination and must be free from physical disability.*

## Foreign Qualifications

1. Formal education in English:

- Completed 10 years of formal education in the English language, and
- Passed the state exam in five different subjects, including obtaining a C6 in the GCE O Level EL1 paper or any of the accepted alternatives.<sup>1</sup>

2. Formal education not in English

- Obtained an undergraduate degree with English as the medium of instruction from a state-recognised university.<sup>2</sup>

<sup>1</sup> Please refer to table (List of English Acceptable Alternatives) in this link: <https://www.ecda.gov.sg/Pages/Teacher-Registration.aspx>

<sup>2</sup> This also applies to applicants with state-recognised PhD/Master degrees with English as the medium of instruction.

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
GCC1001	Current Issues & Critical Thinking	1	2	
GCS1006	Communication & Information Literacy	1	2	
GCS1007	Workplace Communication	1	2	
GCS1008	Persuasive Communication	1	2	
GG1002	Global Studies	1	3	
GG1003	Managing Diversity at Work*	1	3	
GG1004	Global Citizenship & Community Development*	1	3	
GG1005	Expressions of Culture*	1	3	
GIN1001	Innovation & Entrepreneurship	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
GIP3004	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS - CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GEC1002	Early Years Character Education	1	4
GEC1003	Early Years Language & Literacy Skills	1	4
GEC1004	Early Years Numeracy Skills	1	4
GEC1005	Early Years Environmental Awareness	1	2
GEC1006	Early Years Creative Expressions & Play	1	6
GEC1007	Principles & Practices in Early Childhood Care & Education	1	2
GEC1180	Child Safety, Health & Nutrition	1	3
GEC1188	Infocomm Technology Essentials	1	1
GEC1190	Professional Experience I	1	2
GPS1001	Foundation Psychology	1	4
GPS1015	Introduction to Educational Psychology	1	4
GEC2001	Early Years Classroom Management	2	4
GEC2003	Family & Community Collaboration	2	4
GEC2004	Early Years Curriculum Integrated Project	2	4
GEC2017	Children Observation & Documentation	2	2
GEC2190	Professional Experience II	2	2
GPS2007	Developmental Psychology	2	4
GPS2016	Child Psychology	2	4
GEC3004	Major Project	3	8
GPS3007	Psychology of the Exceptional Child	3	4

## DIPLOMA SUBJECTS - ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GEC1194	Fundamentals of Early Years Visual Arts Education	1	4
GCS1004	Fundamentals of Reading & Writing (Prescribed Diploma Elective)*	1	2
GCS1005	Basic Listening & Oral Skills (Prescribed Diploma Elective)*	1	2
GPS1018	Issues, Trends & Collaboration in Early Childhood Intervention	1	4
GEC2009	Global Perspectives in Early Childhood Studies	2	4
GPS2018	Classroom Management & Strategies in Early Childhood Intervention	2	4
GPS3009	Assessment, Evaluation & Programming in Early Childhood Intervention	3	4

*\*Students who do not have B4 and above will need to take the DipE subjects in 1.1 and 1.2 semesters, i.e. Diploma Electives GCS1005 and GCS1004 respectively.*

# Gerontological Management Studies



**WHO DO WE HAVE: A new generation of older adults, who are healthier, richer and better educated than their predecessors. They belong to the silver industry where the Boomers will continue to be the wealthiest generation until at least 2030. They currently outspend all other generations in almost every consumer category.**

**WHO DO THEY NEED: Graduates with an in-depth understanding of the silver market, the 'Business of Ageing' and the 'Active Ageing' industry to support the aspirations of this increasingly significant population.**

If you enjoy working with people, and would like a career in helping older adults achieve fulfilling and productive lives, then this is the course for you. As people are living longer, there is dramatic growth in opportunities in the many sectors. In view of this trend, the course is designed to meet the specific requirements of this rapidly growing industry.

The course offers a multi-disciplinary curriculum that is underpinned by a sound knowledge of gerontology, sociology and psychology. You will be equipped to apply this knowledge of ageing issues in a range of sectors and settings – wherever we see older clients, customers, personnel and members.

The course provides you with specialised training in areas identified as growing sectors by the silver industry: Travel and leisure, health and wellness, and community and social services. You will acquire a working knowledge of the relevant sectors through hands-on education, project work and internship. Two specially designed facilities complement students' learning experience. The Centre for Applied Gerontology is a research centre that provides opportunities to engage with industry in projects. This facility is also purposely designed for students to develop and conduct intergenerational learning activities and interact with older adults. The outdoor 'Intergenerational Playground' is appointed with purpose built and designed equipment from Europe suitable for all ages.



...the curriculum, underpinned by sound domain knowledge on Gerontological Studies and Business Management principles will put your graduates in good stead to serve the specific needs of the emerging silver industry.

Mrs Helen Ko  
Executive Director  
Beyond Age

## Career Opportunities

Careers you can look forward to include, social work, entrepreneurs, business executives, programme executives, allied health personnel, retail & marketing executives, tourism & leisure management officers and human resource & training executives. You will also be well positioned for other people oriented careers that provide products and services to the mature generation and others. The scope of jobs available is not limited to the silver industry since the training provided is valuable in non-profit, for-profit and 'work-for-good' businesses and organisations.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 32 credit units
Diploma Subjects	
Core Subjects	: 81 credit units
Elective Subjects	: min 12 credit units
Total Credit Units Completed	: min 125 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1)*	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 7
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must have sat for relevant subjects listed under the ELR2B2-A category. Details can be found in the following weblink <http://www.tp.edu.sg/admissions/gce-o-level-aggregate-scores-computation>.

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
GCC1001	Current Issues & Critical Thinking	1	2	
GCS1006	Communication & Information Literacy	1	2	
GCS1007	Workplace Communication	1	2	
GCS1008	Persuasive Communication	1	2	
GGS1002	Global Studies	1	3	
GGS1003	Managing Diversity at Work*	1	3	
GGS1004	Global Citizenship & Community Development*	1	3	
GGS1005	Expressions of Culture*	1	3	
GIN1001	Innovation & Entrepreneurship	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
GIP3003	Student Internship Programme	3	8	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ANT1003	Nutrition Fundamentals	1	3
BBS1001	Principles of Management	1	4
BRM1005	Marketing Fundamentals	1	4
GEM1008	Introduction to Gerontology	1	4
GEM1009	Introduction to Sociology	1	4
GEM1010	Lifestyle, Ageing & Well-Being	1	4
GEM1011	Applied Social Research	1	4
GEM1012	Programme Planning	1	4
GPS1010	General Psychology	1	4
GEM2000	Sociology of Ageing	2	4
GEM2004	Ageing & Illness	2	4
GEM2013	Psychology of Ageing	2	4
GEM2014	Health Promotion & Active Ageing	2	4
GEM2017	Marketing to Older Adults	2	4
GEM2018	Community Development with Older Adults	2	4
GEM2019	Physical Activities & Wellness for Older Adults	2	4
GEM2022	Gender Issues in Later Life	2	4
BMK3012	Sales & Account Management	3	4
GEM3006	Major Project	3	6
GEM3011	Contemporary Issues in Ageing Societies	3	4

### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Elective Cluster Subjects - Travel &amp; Leisure</u>			
BHT2005	Event Management	2	4
GEM2015	Tourism, Services & Trends	2	4
GEM2016	Itinerary Planning & Management	2	4

# Psychology Studies



Imagine having an edge over others in understanding how people think and what makes them behave the way they do. Psychology is the right course for you if you enjoy working with people, and see yourself in a career that will bring out the best in others.

The course provides you with a foundation in the study of human behaviour and mental processes. It also prepares you for a career in the social services and special needs education sectors, where Psychology is applied to improve the lives of many. Apart from studying core subjects in Psychology and the social services, you are also given the flexibility to choose elective subjects according to your personal interest.

Through the course, you will discover how Psychology enriches lives, with many meaningful and practical applications.



Having good interns work for us has a practical importance in conducting our research. We have been impressed by their professional and hardworking attitudes, which give credit to themselves and their polytechnic.

Dr Mark Rice  
Scientist  
Institute for Infocomm Research (A\*STAR)

## Career Opportunities

Our graduates are well prepared to enter a variety of exciting careers in the social services, special education and research fields. Graduates who aspire to become certified psychologists, counsellors or social workers may pursue further studies in related fields of study.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 36 credit units
Diploma Subjects	
Core Subjects	: 72 credit units
Elective Subjects	: min 12 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1)*	Grades 1 - 6
Mathematics (E or A)	Grades 1 - 7
Any three other subjects, excluding CCA	Grades 1 - 6

To be eligible for selection, applicants must have sat for relevant subjects listed under the ELR2B2-A category. Details can be found in the following weblink <http://www.tp.edu.sg/admissions/gce-o-level-aggregate-scores-computation>

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
GCC1001	Current Issues & Critical Thinking	1	2	
GCS1006	Communication & Information Literacy	1	2	
GCS1007	Workplace Communication	1	2	
GCS1008	Persuasive Communication	1	2	
GGS1002	Global Studies	1	3	
GGS1003	Managing Diversity at Work*	1	3	
GGS1004	Global Citizenship & Community Development*	1	3	
GGS1005	Expressions of Culture*	1	3	
GIN1001	Innovation & Entrepreneurship	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
GIP3005	Student Internship Programme	3	12	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GPS1001	Foundation Psychology	1	4
GPS1007	Survey & Qualitative Research Methods	1	4
GPS1020	Introduction to Social Services	1	4
GPS1021	Introduction to Research Methods & Statistics	1	4
GPS1022	Introduction to Special Needs Education	1	4
GPS2001	Experimental Design & Statistics	2	4
GPS2005	Social Psychology	2	4
GPS2007	Developmental Psychology	2	4
GPS2014	Contemporary Issues in Psychology	2	4
GPS2017	Cognitive Psychology	2	4
GPS2021	Counselling Psychology	2	4
GPS2024	Group Work: Processes & Facilitation	2	4
GPS2025	Applied Psychology Project A (Survey Design)	2	4
GMP3001	Major Project	3	8
GPS3013	Industrial & Organisational Psychology	3	4
GPS3014	Community Psychology	3	4
GPS3016	Applied Psychology Project B (Experiment Design)	3	4

### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Social Services Electives</u>			
GPS2010	Health Psychology	2	4
GPS3003	Abnormal Psychology	3	4
GPS3015	Deviant Behaviour & Rehabilitation	3	4
<u>Special Needs Education Electives</u>			
GPS2026	Classroom Management & Strategies in Special Needs Education	2	4
GPS2027	Assessments & Interventions in Special Needs Education	2	4
GPS3012	Evidence-Based Strategies in Special Needs Education	3	4

# Subject Synopses

## ANT1003 Nutrition Fundamentals

This subject examines the role and importance of macro- and micronutrients in relation to the wellbeing of the human body. It covers food sources of these nutrients and their interrelationships. You will be exposed to the use of basic nutrition tools like the Healthy Diet Pyramid, food composition tables and online nutrition databases for nutritional analysis.

## BBS1001 Principles of Management

This subject provides you with an insight into the key functions of management and the practical issues which managers of today face. Aspects of management such as planning, organising, leading, controlling, international management, business ethics and social responsibility will be covered.

## BHT2005 Event Management

The subject introduces you to the scope of events management and their application in the context of the tourism industry. From this macro perspective, you will set out to build a foundation in event conceptualisation, development and production covering topics such as marketing of events, human resource management, budgeting and staging.

## BMK3012 Sales & Account Management

Selling forms an integral part of the “promotion” component of the marketing mix. This subject provides you with a comprehensive coverage of consultative selling, partnering, value-added selling, sales force automation, contextualised selling in both consumer and non-consumer industries, and time-proven fundamentals in sales management.

## BRM1005 Marketing Fundamentals

This subject provides an understanding of the basic concepts and practices of modern marketing. It focuses on the role and tools utilised by marketers in developing the appropriate marketing mix and in the identification of target segments.

## GCC1001 Current Issues & Critical Thinking

This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals.

## GCS1004 Fundamentals of Reading & Writing (Prescribed Diploma Elective)\*

This subject will help you to develop and apply critical reading skills to general articles, so that you can better assess articles you read in terms of the relevant content and the specific intents of the authors. You will also explore the basics of writing concise and critical summaries of the articles you have read.

## GCS1005 Basic Listening & Oral Skills (Prescribed Diploma Elective)\*

This subject will help you to develop and improve upon their listening & oral communication skills. You will explore general topics upon which they are to speak coherently and effectively, so that the primary intent and purpose of that speaking situation is put across clearly. You will also explore the different techniques and key skills in listening effectively, to ascertain the key points of any speaker’s oral communication.

## GCS1006 Communication & Information Literacy

In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the **Message**, **Audience**, **Purpose** and **Strategy** (MAPS) when writing and delivering oral presentations.

## GCS1007 Workplace Communication

In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying **Message**, **Audience**, **Purpose** and **Strategy** (MAPS) will be covered.

## GCS1008 Persuasive Communication

In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **Message**, **Audience**, **Purpose** and **Strategy** (MAPS) will also be applied when engaging in verbal and written communication.

## GEC1002 Early Years Character Education

This subject emphasises the importance of early years character education in young children’s development and equips you in teaching social-emotional competencies necessary for character formation. It also highlights the role of teachers in modelling good character traits and gives you an overview of the scope covered under early years character education curriculum, for example, in areas like global citizenship and pre-schoolers’ self-care and management.

## GEC1003 Early Years Language & Literacy

This subject introduces you to the theoretical and philosophical underpinnings of literacy development, birth to early childhood. Combining research, reflection and early childhood practices, the subject fosters an understanding of how techniques and activities affect language and early literacy skills development in young children.

## **GEC1004 Early Years Numeracy Skills**

This subject examines how children learn mathematical concepts in relation to their developmental level. It also provides you with a conceptual framework for designing and developing numeracy skills that will be integrated into other classroom curriculum.

## **GEC1005 Early Years Environmental Awareness**

This subject provides you with an overview of how children make sense of the world they live in. The scope of early years science and environmental awareness, which include the physical science, life science, earth and space science, science and technology, science in personal and social perspectives, history and natural of science will be covered. Insights into how children acquire science concepts and process skills will be examined. Discussion will be framed within the constructivists' theories and the problem solving approach.

## **GEC1006 Early Years Creative Expressions & Play**

This subject introduces you to an array of visual (print and craft) and performing (drama, music and movement) arts and become competent in creating appropriate learning environment and activities that foster creativity in children. In addition, this subject examines the importance of gross and fine motor skills and the underlying theories of motor development in children. You will also have a deeper understanding of children's perceptual, fine and gross motor skills and learn how you can incorporate elements of play to promote their motor/physical development.

## **GEC1007 Principles & Practices in Early Childhood Care & Education**

The introductory subject presents you with an overview of the principles, practices and programmes in Early Childhood Care and Education (ECCE). Historical and contemporary philosophical perspectives of current practices will be discussed to give you a sense of the origins of early childhood education and how it has evolved. The course will create awareness of the aims of ECCE and its benefits in local contexts.

## **GEC1180 Child Safety, Health & Nutrition**

This subject focuses on the interrelationships of safety, nutrition, health and hygiene in the care of young children, in various early childhood settings. It explores a holistic approach and examines an ecological perspective in working collaboratively for the well-being of children.

## **GEC1188 Infocomm Technology Essentials**

This module develops e-competencies by equipping students with the essentials of InfoComm Technology (ICT) concepts and skills needed to use ICT applications for information research, organisation, collaboration and presentation.

## **GEC1190 Professional Experience I**

Professional Experience I aims to transform educational theories from the lecture rooms to practical learning at the classrooms setting by providing you with opportunities to witness early childhood theories in action. You will be able to observe children's interest, needs and abilities, plan and implement developmentally and individually appropriate activities to enhance the holistic development of the child; observe how principles of early childhood care and education are applied in the early childhood setting.

## **GEC1194 Fundamentals of Early Years Visual Arts Education**

This subject aims to equip early childhood educators with a deeper understanding of visual art education within the early childhood landscape, and to develop the capability to introduce and integrate visual arts activities that are meaningful and insightful to enhance learning in early childhood settings. To help you gain greater competence, you will be provided with extensive hands on experience in the 2D and 3D art-making activities.

## **GEC2001 Early Years Classroom Management**

This subject addresses issues of classroom management and problem behaviours. It also examines teaching strategies, challenging behaviours, effective communication and building an environment conducive for learning.

## **GEC2003 Family & Community Collaboration**

This subject emphasises the importance of collaborative partnership with family, school and community in early childhood education. Various models of family involvement will be explored with the focus on working respectfully with families of diverse backgrounds. The subject also introduces you to effective planning skills and strategies for establishing family-based programmes to support optimum child development through community partnership.

## **GEC2004 Early Years Curriculum Integrated Project**

This subject provides opportunities for you to apply your learning in the design of a learning environment that facilitates a developmentally and culturally appropriate curriculum for young children. It offers opportunities for collaborative interdisciplinary learning to integrate knowledge of the early years curriculum domains. You will learn to create materials, activities and environment that support young children's learning and development.

## **GEC2009 Global Perspectives in Early Childhood Studies**

This subject examines early childhood care and education (ECCE) approaches, practices and issues in various parts of the world. It includes global trends and educational issues; early years pedagogical models and approaches, policies, philosophies and practices.

## **GEC2017 Children Observation & Documentation**

This subject introduces the process of observation, documentation and interpretation of children's behaviours in the early childhood setting to gain an insight into children's thinking and learning. Utilising various observation tools with brief video clips of both children and adults to support its premise, this subject outlines and discusses relevant aspects of observing children. It also introduces videatives as a resource for revisiting and analysing documented observations to support planning of activities that are meaningful to each child.

## **GEC2190 Professional Experience II**

Professional Experience II builds upon learning gained from Professional Experience I by deepening and stretching students' experiential envelope during their field attachment by exposing them to best practices in the preschool setting. Specifically, in the areas of classroom and behaviour management strategies; curriculum planning and implementation, and small group teaching approaches.

## **GEC3004 Major Project**

The Major Project is intended to complete your training by providing a real-world experience to integrate and apply your knowledge in a practical learning situation. Besides research, design and project management skills, the emphasis will also be on innovation, creativity, teamwork and enterprise.

## **GEM1008 Introduction to Gerontology**

This subject introduces you to the theoretical perspectives and approaches to the study of ageing from various disciplines. It will examine the causes and consequences of ageing at the level of individuals and populations. This involves investigating the social, physical and mental changes humans undergo as they age, as well as the impact of the elderly population on social, economic and political institutions.

## **GEM1009 Introduction to Sociology**

This subject introduces you to the key theoretical perspectives in Sociology. Through these theories, you will examine current and emerging social phenomena. From the systematic study of different social structures e.g. family, work, social control, gender and ethnicity, you will be able to apply sociological concepts to help you explain social life in societies.

## **GEM1010 Lifestyle, Ageing & Well-Being**

This subject addresses issues relating to ageing and well-being. The concept of the quality of life is also examined. You will examine the significance of social support networks amongst older persons, and its impact on their well-being. The relationship between leisure and healthy ageing, implications of continuous employment and retirement are also covered in this subject.

## **GEM1011 Applied Social Research**

This subject provides a general understanding of the theory and practice of social science research and presents science as a powerful method of human thinking. The focus is to provide you with the necessary information to understand the importance of research in the field of social science and its applications to various settings. You will learn a systematic way of thinking and knowledge discovery known as scientific inquiry.

## **GEM1012 Programme Planning**

This subject provides a foundation in programmes conceptualisation, development and production, covering topics such as programme design, programme management, programme evaluation and budgeting, as well as staging of programmes.

## **GEM2000 Sociology of Ageing**

This subject provides a sociological perspective on the process and experience of human ageing in modern society, while adopting a context-based approach that employs case studies. Topics include the demographic and political impact of ageing societies, historical and cultural perspectives on ageing, and the major theoretical approaches to the study of ageing. Various social policies and institutions that affect ageing will also be examined. These include social policies on health care, housing, retirement, death, living environments and social support for the aged.

## **GEM2004 Ageing & Illness**

This subject provides perspectives and issues relating to illness and growing old. Topics include avoidable illness, health concerns, ageing organ systems, principles of drug therapy, unique aspects of illness presentation, medical ethics, legal issues, community networking, and active maturing.

## **GEM2013 Psychology of Ageing**

This subject provides insights into geropsychological concepts and theories relating to the adult's adaption to the third and fourth age. Issues relating to the ageing population, improved longevity, and the changing psychological needs and capabilities of older people are examined.

## **GEM2014 Health Promotion & Active Ageing**

This subject examines current health promotion practices which enable individuals, carers and the community to manage their health. Theoretical underpinnings of the approaches to health promotion are explored along with the development of programmes incorporating practical examples. Special attention is given to how such practices and approaches support active ageing. Business models and trends related to aspects of health promotion and active ageing are also considered.

## **GEM2015 Tourism Services & Trends**

This subject provides an overview of the tourism and leisure industry with a focus on the silver market niche. It integrates broad perspectives with the study of the emerging silver tourism industry by examining trends and issues plus the profile of the silver travellers against a backdrop of key tourism services.

## **GEM2016 Itinerary Planning & Management**

This subject provides knowledge on geography, places of interest, modes of transportation, consumer behaviour and marketing in order for you to plan customised travel itineraries for the silver traveller. Management techniques to enhance customer satisfaction are also discussed. It includes hands-on training on a global distribution system (GDS), e.g. Amadeus, which leads to an industry-recognised certification upon successful completion.

## **GEM2017 Marketing to Older Adults**

This subject considers the changing age composition of the 'mature' market in response to the ageing population. The content examines the older consumer, general trends and issues, and features of the main segments within the market.

## **GEM2018 Community Development with Older Adults**

The subject will provide an understanding of the principles and approaches to community development and how these can be applied to work with older adults to address some of their major challenges. You will be introduced to the methodologies and skills of participatory development that will enable them to engage older adults in ways that harnesses their potential.

## **GEM2019 Physical Activities & Wellness for Older Adults**

The subject examines the structural, physiological, psychological, and functional changes occurring during late adulthood and their implications on the planning, implementation and evaluation of exercise programmes for this age group. You will develop an understanding of the exercise needs of older persons and learn basic fitness programmes that are age appropriate.

## GEM2022 Gender Issues in Later Life

The various gender-based issues surrounding elderly men and women will be explored. This subject will examine the impact of ageing on the gender identity and roles of an ageing person. Special attention will be directed to the gender gap in longevity, emerging psychological and physiological issues, the impact of social change on gender relations in families, socioeconomic issues among ageing men and women, and the influence of social policy.

## GEM3006 Major Project

The Major Project is intended to complete your training by providing a real-world experience to integrate and apply your knowledge in a practical learning situation. Besides research, design and project management skills, the emphasis will also be on innovation, creativity, teamwork and enterprise.

## GEM3011 Contemporary Issues in Ageing Societies

This subject will examine current issues that are evident in ageing societies around the world. You will gain an understanding of the transformations and challenges faced by ageing individuals and the state. The subject will also examine the on-going debates on individual and societal responses to ageing issues. You will also learn about the ageing trends in both developed and developing countries.

## GGs1002 Global Studies

This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.

## GGs1003 Managing Diversity at Work

You will examine your own identity, study different forms of diversity and apply strategies to inspire positive collaboration in a diverse workplace. Through a residential stay, you will have the opportunity to experience living and working with peers from different backgrounds.

## GGs1004 Global Citizenship & Community Development

This subject highlights the inter-connectedness of the world today, bringing about what it means to be a Global Citizen. You will gain an awareness of the impacts of globalisation and the concepts of social responsibility and sustainable community development. This subject also challenges you to be actively engaged in a social or environmental project.

## GGs1005 Expressions of Culture

Whether telling stories, building monuments or celebrating rites of passage, expressions of culture are at the core of cultural diversity. In this subject, everyday objects, artistic creations and popular culture are explored as ways of understanding the values and beliefs of a society. You will explain the role of cultural heritage stakeholders and learn to conduct cultural story-telling. By taking this subject, you will benefit by acquiring a greater understanding and appreciation of the complexities surrounding our cultural assets.

## GIN1001 Innovation & Entrepreneurship

The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. You will first be introduced to the Design Thinking framework and learn how to develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. In addition, commercial awareness will be imbued in you through the LEAN Startup framework, idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding/crowdsourcing avenues.

## GIP3003 / GIP3004 / GIP3005 Student Internship Programme

This internship programme is a 12-week attachment to relevant organisations that will enable you to link and practise your learning with the real world. You will have opportunities to handle real problems and issues, and apply the concepts and skills that you have acquired in the course of your study.

## GMP3001 Major Project

The major project is intended to complete your training by providing a real-world experience to integrate and apply your knowledge in a practical learning situation. Besides research, design and project management skills, the emphasis will also be on innovation, creativity, teamwork and enterprise.

## GPS1001 Foundation Psychology

This subject provides you with an overall perspective and understanding of psychology as a scientific study of mental processes and human behaviour. Fundamental concepts, theories and methodology in the study of psychology will be explored to enhance your understanding of the biological, cognitive and social bases of behaviour.

## GPS1007 Survey & Qualitative Research Methods

This subject builds upon your foundational understanding of statistical concepts and data analysis methods. It equips you with the knowledge, skills and techniques, as well as hands-on experience in the conduct of empirical and qualitative research in psychology and the social sciences.

## GPS1010 General Psychology

This subject provides you with an introductory perspective and understanding of psychology as a scientific study of mental processes and human behaviour. Fundamental concepts and theories in the study of psychology will be explored to enhance your understanding of the internal and external bases of human behaviour.

## GPS1015 Introduction to Educational Psychology

This subject provides you with an overview of psychological principles related to teaching, learning and cognition in the context of education. You will learn about how different classroom management techniques and instructional pedagogies can be applied to enhance the learning environment and facilitate human growth and development in educational settings.

## GPS1018 Issues, Trends & Collaboration in Early Childhood Intervention

This subject provides you with an overview of inclusive practices (including theories, issues, trends and research – internationally and within Asia). In particular, the subject aims to provide you with an overview of current and local focus on the need to maximise the potential of all children in Singapore to minimise the effects of their special needs in the long run and how this can be accomplished through collaboration with family and community resources.

## GPS1020 Introduction to Social Services

This subject provides you with a broad introduction to the social services sector in Singapore, including the special needs education sector. You will be introduced to the social services landscape including the key agencies in the sector, as well as the issues and challenges faced within this sector.

## GPS1021 Introduction to Research Methods & Statistics

This subject aims to provide you with an overview of research methodology and statistical tools in the social sciences. This will include an introduction to the enterprise of scientific research, research ethics, and also rudimentary research methods and statistical concepts, in order to prepare students for more advanced research methods subjects.

## GPS1022 Introduction to Special Needs Education

This subject provides you with an introduction to the range of special needs and types of disabilities encountered in the special needs education sector. It equips you with foundational understanding necessary to build towards higher-order skillsets in the areas of classroom management and the development of interventions for people with special needs.

## GPS2001 Experimental Design & Statistics

This subject equips you to address more complex research questions using an expanded range of research designs and statistical techniques. You will be given opportunities to apply knowledge, skills and techniques and employ statistical software to analyse and interpret data from a range of psychological experiments.

## GPS2005 Social Psychology

This subject is about the scientific study of the interactions between people and the social contexts they live in. Through exploring real-world social events and situations, you will gain a deeper appreciation of how people's thoughts, emotions and behaviours are influenced by other people.

## GPS2007 Developmental Psychology

This subject examines theories and methodologies covered in developmental psychology. You will explore and gain a deeper understanding of how people change at each developmental phase as a result of interaction between innate factors and external experiences.

## GPS2010 Health Psychology

This subject examines the impact of mental, emotional and behavioural factors that affect the onset, duration, recovery and prevention of physical illnesses. You will also learn to analyse health and disease issues using psychological principles and techniques in the context of an interrelated and diverse world.

## GPS2014 Contemporary Issues in Psychology

This subject involves seminars and workshops conducted for deeper study and inquiry into special topics exploring the application of psychology in specific settings such as personal, social and organisational settings. Supervised by staff or guest lecturers who are experts in their fields, the subject is designed to encourage research as well as the intensive study of specific topics and areas that could vary depending on resources and expertise.

## GPS2016 Child Psychology

This subject focuses on the major issues related to the physical, cognitive and psychosocial development of a child. You will gain knowledge and understanding of why children think and behave the way they do, as well as apply theoretical understanding on nurturing the development of young children.

## GPS2017 Cognitive Psychology

This subject explores two main thematic areas of human information processing, namely, perception and cognition. You will explore topics such as sensory perception, attention, learning and memory, knowledge structure, language, judgment and decision making in order to enhance your understanding of how human beings perceive and process information.

## GPS2018 Classroom Management & Strategies in Early Childhood Interventions

This subject provides you with fundamental knowledge on how to create and organise the environment to promote physical, intellectual, emotional and social development of children with special needs. You will also explore strategies for communication with these children for effective teaching in a classroom setting, as well as for management and guidance of children's behaviour.

## GPS2021 Counselling Psychology

This subject aims to provide an introduction to the field of counselling psychology. You will learn about the fundamentals of counselling and discuss the theoretical perspectives that guide the work of counselling psychologists. You will also explore contemporary issues that influence the counselling profession, including ethics, assessment and working with diversity, and to learn about special approaches and settings for counsellors.

## GPS2024 Group Work: Processes & Facilitation

This subject equips you with the knowledge and skillsets necessary to develop and carry out group work sessions in the context of the social service sector.

## GPS2025 Applied Psychology Project A (Survey Design)

Psychology is not just a theoretical subject. It holds valuable and practical applications across a wide range of personal, interpersonal and professional settings. This subject allows you to apply previously learnt psychological techniques and research skills in a survey research project to better understand individuals in an applied setting.

## GPS2026 Classroom Management & Strategies in Special Needs Education

This subject presents you with an overview of the types of teaching and intervention approaches in managing people with different types of special needs. It also explores teaching strategies to support learners with various special education needs.

## GPS2027 Assessments & Interventions in Special Needs Education

This subject covers the different types of assessments, and guidelines for their use in the context of special needs education. The subject also explores different programming strategies and interventions to support learners with various special needs.

### **GPS3003 Abnormal Psychology**

This subject explores concepts and issues surrounding abnormal behaviour and illnesses. You will explore major theories on how physiology, cognition, developmental, social and other issues influence behaviour. You will also be provided with an overview of intervention methodologies and techniques commonly used in the treatment of maladaptive behaviours and psychological disorders.

### **GPS3007 Psychology of the Exceptional Child**

This subject covers insight into understanding and working with exceptional children, as well as challenging pre-existing conceptions of these children. You will be introduced to various exceptional needs including cognitive, behavioural, emotional and physical disabilities. Holistic methods for creating an inclusive learning environment to meet the needs of exceptional learners in the early childhood special education field will also be introduced. You will also learn and discuss the possible strategies to working with their families and collaborating with professionals in the field.

### **GPS3009 Assessment, Evaluation & Programming in Early Childhood Intervention**

This subject helps you to make effective and timely observations for assessment of learning during the early years as well as appraisal of children's behaviour. You will be introduced to assessment strategies, as well as approaches in programme planning, implementation and evaluation.

### **GPS3012 Evidence-Based Strategies in Special Needs Education**

This subject will provide you with the opportunity to apply evidence-based strategies in developing appropriate interventions, training or educational materials in special needs education. You will work with an actual industry partner to meet a specific industry need in the special needs sector.

### **GPS3013 Industrial & Organisational Psychology**

This subject provides you with opportunities to apply psychological knowledge, research methods and intervention strategies within industrial and organisational settings. You will explore both the theoretical and practical aspects of personnel and organisational psychology. Learn about how psychology can help people become more effective at the workplace.

### **GPS3014 Community Psychology**

This subject helps you understand the ecological interaction between individual, group, organisational, community and societal factors and their effect on the health and affective well-being of all members of a community. It will also introduce you to the theories and paradigms of research and action, promotion of psychological resilience and prevention of mental health problems, based on community psychology perspectives.

### **GPS3015 Deviant Behaviour & Rehabilitation**

This subject focuses on raising awareness of the theoretical, psychological and developmental perspectives on deviant behaviour. In addition, it examines the psychological factors that relate to crime on a general level, specific offences and also specific offender and victim groups. You will learn to evaluate the contribution of psychology to the explanation of deviant behaviour in a multi-disciplinary framework. You will also gain an understanding of the Singapore prisons and rehabilitation system.

### **GPS3016 Applied Psychology Project B (Experimental Design)**

This subject builds on skills and experience gained from earlier project work-related subjects. More opportunities will be provided for you to explore the various fields in psychology and apply psychological knowledge in greater depth. You will be required to conduct an experimental research project from a range of relevant topics.

### **LEA1011/1012/1013 Leadership: Essential Attributes & Practice (LEAP)**

LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.

### **LSW1002 Sports & Wellness**

This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.

### **MCR1001/MCR1002/MCR1003 Career Readiness**

This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. It aims to cultivate the necessary attitudes, skills and knowledge to conduct yourself professionally, adapt and respond to the changing job market environment.

### **TGL1001 Guided Learning**

This is a subject where you will be free to pursue an area of interest through a self-directed approach, guided by staff. You will be expected to demonstrate a sense of curiosity for learning, initiate an opportunity to acquire knowledge and skills, and reflect on your learning journey throughout the subject.



# School of Informatics & IT

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Walk into any bank, airport, school, office, hospital, park, theatre, train station and you will notice the pervasive power and amazing influence of Information Technology. At the School of Informatics & IT, you will receive a very strong foundation in IT and an understanding of specialised areas like big data, analytics, financial technologies, cyber security, digital forensics, game design and software development.

As a leader in the field of IT education, we are recognised as a forward-looking and progressive School, providing a range of highly relevant courses. Our emphasis on developing problem-solving and thinking skills helps us to cultivate intelligent individuals who are independent, analytical and able to respond effectively to the needs of people and organisations. We have a strong culture of applied learning, innovation and enterprise to nurture professionals who are ready for the industry. Communication skills, critical thinking, global awareness and teamwork are also emphasised because these are key attributes for people working in a global economy.

Through our Student Internship Programme, you will have the chance to gain real life work experience in either local or overseas companies, organisations or research institutes. In fact, in your final year you can be attached to an organisation for up to one year as an intern. This rich experience will prepare you well as an IT professional and give you an edge when you seek employment.

Develop your talents and skills by taking part in enrichment programmes which include national and international competitions. You will also have the opportunity to complete professional IT certification exams and participate in local and global community projects. There are many opportunities for you to be involved in social outreach activities as well, to make a difference in the lives of others. After three years, you will graduate with the confidence, qualities and skills to add value to the organisations you join.

To ensure that our curriculum remains relevant to the industry, we work closely with employers to maintain quality, industry relevance and high academic standards. An advisory committee, comprising leading industry professionals from a range of companies such as Autodesk, Cisco Systems, Cyberark, Dell, Fujitsu, the Infocomm Media Development Authority of Singapore, IBM, SAS, ST Electronics and more, provide advice to the School on its strategic direction and development to ensure that the courses we offer prepare you well for the future.

# Specialist Centres and Learning Enterprises

## Agile IT Solutions Centre

This Centre is a Learning Enterprise where staff, students and industry engage in providing solutions to real-life business and organisational challenges by developing solutions using Agile methodologies and design thinking. The use of Agile methodologies help improve productivity in developing IT solutions, demonstrating in the process a keen sensitivity and responsiveness to user needs.

## Innovation & Research Centre

This Centre is a Learning Enterprise for staff, students and industry to work together on translational research and innovation projects. It will host and enable participants to pursue applied industry research and participate in programmes that will help commercialise their innovations. The Centre's goal is to support participation in Research, Innovation and Enterprise (RIE) projects to nurture innovative scientists, IT engineers and competent IT professionals through funded projects.

## TP-Pivotal Agile Cloud Digital Centre

The TP-Pivotal Agile Cloud Digital Centre enables the practice of industry-recognised cloud platform software development processes. The Centre provides an environment to deep dive into DevOps with pair programming and test-driven development methodology.

## TP-Nvidia Technology Centre

The TP-Nvidia Technology Centre (NTC) facilitates engagement on industry projects using Deep/Machine Learning and AI technologies, and Nvidia's GPU (Graphic Computing Processes) platform. This is the only centre that Nvidia has set up at a polytechnic in Singapore.

## Big Data & Analytics Hub

This Hub comprises the following facilities dedicated to nurturing competent professionals in the area of big data & analytics:

- **TP-IBM Retail Analytics Centre**

Established in collaboration with IBM Singapore, this Centre exposes staff and students to IBM's business analytics technologies and methods used in a live production environment. IBM annually engages their retail clients to work with the School's staff and students at the Centre to carry out proof-of-concept and client projects in the area of retail analytics.

- **TP-Pivotal Data Science Academy**

At this academy located in the School of Informatics & IT, full-time students taking the Big Data Management & Governance and Business Intelligence & Analytics diploma courses will take modules that support their coursework and lead to professional certifications. The academy also provides short elective courses and a six-week projects programme designed to solve hypothetical problems as well as real problems in the areas of Data Science and Engineering. Students taking part-time courses would also benefit from modules offered by this academy.

- **TP-SAS Business Intelligence & Analytics Centre**

Established in collaboration with SAS Institute, this Centre provides the latest infrastructure, facilities, software, and datasets to facilitate learning of comprehensive business intelligence and analytics skill sets in a data-rich environment. This Centre is capable of supporting the end-to-end business analytics life cycle, and focuses on areas such as business intelligence, data mining, social media analytics and predictive analytics. It also promotes industry collaboration and capability building by enabling students and staff to undertake relevant industry projects, and conduct applied research and development in advanced analytics.

- **TP-Thomson Reuters Financial Risk Management Centre**

Established in collaboration with Thomson Reuters and equipped with its financial software, and premium financial information terminals, this Centre provides students with the unique opportunity to learn in a live financial market environment that familiarises them with investment banking and risk management operations.

## TP-Autodesk Serious Games Hub

This Hub comprises the following facilities dedicated to nurturing competent game designers & developers:

- **Select-Start Studios**

These Studios provide an environment, which supports the development of digital games for education, business, human resource training, entertainment and a host of other purposes. It provides students with a real world learning environment and experience at each crucial stage of the game development process. Within the Studios, students will have spaces for game design and game development.

- **Ui/Ux Future Lab**

Students at the Ui (user interface) and Ux (user experience) labs will learn about human computer interaction and engage in testing out their applications. Beyond evaluating current user interfaces and user experiences the Ui/ Ux Future Lab is also equipped to work on new forms of interactions for future devices and applications. The labs have the latest equipment such as a state-of-the-art eye tracker system for evaluations. The results of the evaluations help students refine their interface and improve the overall user experience.

- **Game Certification Centre**

At the Game Certification Centre, we validate the skills and professional development for the game industry. This gamification centre provides certification for game technologies related to the industry. Such technologies include the latest game engines and industry recognised certifications, such as the Autodesk Professional certifications. We are currently the only polytechnic, which provides Autodesk Professional certifications for the media and entertainment industry

## IT Security & Forensics Hub

This Hub comprises the following facilities dedicated to nurturing competent cybersecurity & digital forensics professionals:

- **Temasek Advanced Learning, Nurturing and Testing Laboratory (TALENT Lab)**

With the purpose of grooming the next generation of cyber security professionals, the Ministry of Home Affairs and Temasek Polytechnic have jointly collaborated to set up the Temasek Advanced Learning, Nurturing and Testing Laboratory (TALENT Lab). The TALENT Lab provides a conducive and realistic environment for students to practice their 'defend and protect' skillsets through near real-life cyber security scenario simulations. They also learn how to design and validate their innovations in dealing with the latest cyber-threats. This practical approach prepares students well for future careers in cyber security and digital forensics.

- **TP-Cisco Internet of Everything (IoE) Centre**

The Internet of Everything (IoE) Centre at the School of Informatics & IT is a collaboration with Cisco which enables government agencies to funnel industry specific IoE solutions development and other related activities to it. Cisco helps to develop TP staff and students' technical capabilities in the area of IoE from embedded device level, design interface level, and networking level to the application level.

- **TP-IBM Security Operations Centre**

The TP-IBM Security Operations Centre provides knowledge and skills training to staff and students in IBM's cyber security operation and incident management processes, methods and cyber security technologies such as IBM QRadar. Staff and students get opportunities to work alongside IBM security professionals on security projects as well as leverage IBM's Global Academic Initiative to support TP's cyber security related subjects. Students who are attached to this on-campus centre will gain unique hands-on experience in all aspects of cyber security monitoring and analysis, under the supervision of TP staff as well as IBM consultants and experts.

- **TP-RSA Security Operations Centre**

This Centre provides an environment equipped with the most advanced cyber security and analysis technologies including RSA Security Analytics, SecOps and ECAT. RSA imparts knowledge and best practices on developing and managing an intelligence driven SOC operations to staff and students.

- **TP Green Data Centre**

Designed for maximum energy efficiency and minimum environmental impact, the Green Data Centre enables IT applications and services, as well as computing resources to be centrally stored, managed and disseminated, without compromising energy consumption. The first Cisco Unified Computing System (UCS) deployed in South East Asia, it also hosts virtual desktop infrastructure technologies from partners such as VMware, EMC, Cisco and Fujitsu.

# Big Data Management & Governance



Do you know that big data plays a major role in our lives? For instance, big data assists soccer clubs in how they use data to gain a strategic competitive advantage. Digital cameras placed in stadiums track every player on the pitch for game insights, while soccer players wear state-of-the-art equipment like GPS trackers, acceleration sensors and heart rate monitors so that their game preparation can be analysed and optimised.

Big data also extends itself to everyday activities such as online shopping with websites leveraging big data to provide a better shopping experience for their customers. For instance, online shopping giants like Amazon use big data to cut delivery times by predicting what online shoppers are going to buy and start delivering the product even before the customer clicks 'buy'!

Indeed, with big data gaining popularity in today's landscape, it is an exciting time for big data professionals. Recognising this, the Singapore Government has come up with initiatives to create a vibrant Data and Analytics ecosystem and position the country strategically as an international Data and Analytics Hub. The first and only polytechnic to offer a full-time Big Data course, you will have opportunities to work with data at your fingertips. You will also attain highly sought-after professional certifications in Data

Engineering, which ascertains your technical competency that you've built through the curriculum. When you graduate, your skillsets will be in great demand by organisations. There are many opportunities and great potential for you to excel in this area.

Upon graduating, our students can pursue further studies through the Earn & Learn Programme which enables them to work and deepen their skills, or they can also undertake courses at local or overseas universities.



There is a clear demand for graduates who have skills and knowledge in the area of Big Data Management & Governance. Your graduates will fill a known need in the big data value chain with the skills they acquired from this course.

Mr Eric Goh  
Managing Director  
Dell EMC Computer Systems  
(South Asia) Pte Ltd

## Career Opportunities

Graduates can expect good career prospects across many industries with local and multinational businesses, government agencies, financial and banking institutions and consulting firms as Data Engineers, Data Specialists, Big Data Operations Specialists, Big Data Technical Support Specialists, Data Analysts, Database Administrators and Data Warehousing Specialists.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 72 credit units
Elective Subjects	: min 8 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any two other subjects	Grades 1 - 6

To be eligible for selection, applicants must also have sat for one of the following subjects: Additional Combined Science, Additional Science, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Human & Social Biology, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
CCS1006	Communication & Information Literacy	1	2	
CCS1007	Workplace Communication	1	2	
CCS1008	Persuasive Communication	1	2	
CGS1002	Global Studies	1	3	
CGS1003	Managing Diversity at Work*	1	3	
CGS1004	Global Citizenship & Community Development*	1	3	
CGS1005	Expressions of Culture*	1	3	
CIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
CSI3004	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCF1C02	IT Systems Security Essentials	1	4
CIA1C06	Database Application Development	1	4
CIA1C07	Logic & Mathematics	1	3
CIA1C10	Data Analytics	1	4
CIT1C14	Data Structures & Algorithms	1	4
CIT1C18	Computational Thinking	1	4
CIT1C19	User Experience & Interface Design	1	3
CIT1C20	Coding & Development Project	1	4
CMC1C08	Network Technology	1	4
CIA2C01	Data Warehouse Modelling	2	4
CIA2C13	Data Visualisation	2	4
CIA2C14	Data Science Essentials	2	4
CIG2C01	Big Data Architecture & Systems	2	4
CIG2C02	Programming for Big Data	2	4
CIG2C04	Data Marshalling & Transformation	2	4
CIG2C06	Data Security & Governance	2	4
CMP3202	Major Project	3	10

### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIA2E01	Text & Social Media Analytics	2	4
CIA3E01	Applied Data Science in a Business Domain	3	4
CIT3C15	Machine Learning for Developers	3	4

# Business Intelligence & Analytics



To run a successful business, you must understand customer needs, preferences and purchasing trends. You need to know what's available in the market, what's selling well, and what your competitors are up to. Yes, that's right – you need to gather intelligence and analyse it to propose smart business strategies. In essence, you will be the thinker behind successful businesses.

Analytics professionals have an exciting career in store, for the Singapore Government is positioning the country strategically as an international Data and Analytics Hub as well as a Smart Nation. If you want to help businesses do better and compete more effectively, then take up this course which will position you for an exciting and rewarding career.

You will undertake projects that equip you with working experience and business domain knowledge that you require as a professional in this field. Exciting internship opportunities with local or overseas organisations provide you with valuable skills and experience as you will be working with diverse people in a dynamic work environment. You can achieve highly sought-after professional certifications, such as SAS Certified Base Programmer and SAS Certified Predictive Modeler Using SAS Enterprise Miner, to ascertain technical competency

built through the curriculum. Upon graduating, our students can pursue further studies through the Earn & Learn Programme which enables them to work and deepen their skills, or they can also undertake courses at local or overseas universities.



Meeting the challenges of the new millennium is quintessential. At SAS, we refer to education as the engine of economic growth. In Singapore, SAS has been in partnership with Temasek Polytechnic since 2002. We believe that quality public education is a critical imperative for our children and for the country in this competitive, global economy. We are actively engaged in ensuring that all students have the support necessary to reach their full potential and become productive citizens. The Temasek Polytechnic BIA Diploma course ensures the next generation of technology and analytics innovators has the knowledge and skills to succeed, and to contribute to Singapore's vision of a Smart Nation.

Randy Goh  
Deputy Managing Director  
SAS Singapore

## Career Opportunities

Graduates can expect good career prospects across many industries such as local and multinational businesses, government agencies, financial and banking institutions and consulting firms as Data Analysts, Business Intelligence Analysts, Business Analysts, Business Analytics Specialists, Data Mining Specialists, Data Warehousing Specialists and Systems Analysts.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
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*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.*

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CCS1008	Persuasive Communication	1	2	
CGS1002	Global Studies	1	3	
CGS1003	Managing Diversity at Work*	1	3	
CGS1004	Global Citizenship & Community Development*	1	3	
CGS1005	Expressions of Culture*	1	3	
CIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
CSI3004	Student Internship Programme	3	16	

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### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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CIA1C10	Data Analytics	1	4
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CIT1C18	Computational Thinking	1	4
CIT1C19	User Experience & Interface Design	1	3
CIT1C20	Coding & Development Project	1	4
CMC1C08	Network Technology	1	4
CIA2C01	Data Warehouse Modelling	2	4
CIA2C05	Data Mining Concepts & Techniques	2	4
CIA2C06	Business Intelligence Applications	2	4
CIA2C11	Predictive & Prescriptive Analytics	2	4
CIA2C12	Quantitative Analysis	2	4
CIA2C13	Data Visualisation	2	4
CIA2C14	Data Science Essentials	2	4
CMP3103	Major Project	3	10

### DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIA2E01	Text & Social Media Analytics	2	4
CIA3E01	Applied Data Science in a Business Domain	3	4
CIT3C15	Machine Learning for Developers	3	4

# Cybersecurity & Digital Forensics



Advanced persistent threat, ransomware and distributed denial of service attacks – you will learn to understand their workings and potential damage they can cause. Learn how to defend against them and acquire the professional skills to detect them when (and not if) defences fail. In addition, learn the techniques to uncover hidden digital traces, analyse digital evidence, reconstruct the digital trail of events and unravel the mystery behind a cybercrime one byte at a time. The cyber world today needs many highly trained professionals with a strong sense of righteousness and tenacity like you to give companies and organs of state a fighting chance against lurking hackers and criminals.

To hone your skills, you will experience working in 'live' learning enterprises such as the TP-IBM Security Operations Centre and Temasek Advanced Learning, Nurturing and Testing Laboratory set up in collaboration with the Ministry of Home Affairs.

In the first year, you will master IT fundamentals that equip you with skills in areas such as software development, networking and data analytics. In your second year, you will acquire industry-specific competencies in cyber security and forensics such as network security, forensics in digital

security and ethical hacking. Receiving hands-on training in state-of-the art facilities, you will learn how to conduct vulnerability assessments of computer and application systems, use ethical hacking tools and implement intrusion prevention solutions.

In your final year, you will have opportunities to be attached to local and overseas cyber security or forensics companies.

You will attain sought-after professional certifications, such as the RedHat Certified System Administrator/Engineer (RHCSA/RHCE), Forensic Toolkit ACE and Cellebrite Mobile Forensics Fundamentals. Upon graduating, our students can pursue further studies through the Earn & Learn Programme which enables them to work and deepen their skills, or they can also undertake courses at local or overseas universities.



We live in a technological era, and cyber security is the cornerstone of a safe digital society. There is an increasing demand for cyber security skillset. This course will not just equip the students with the relevant know-how, but train future cyber security leaders to tackle the evolution of threats that affects businesses, privacy and lives.

Matthias Yeo  
Chief Technology Officer (Asia)  
Symantec Corporation

## Career Opportunities

Graduates from the Diploma in Cybersecurity & Digital Forensics will have good employment opportunities with local and multinational businesses, governments, financial and banking institutions, and consulting firms as security penetration testers, security operations analysts, incident/forensic/threat investigators and IT security auditors.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
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Total Credit Units Completed	: min 120 credit units

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LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
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MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
CSI3004	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

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CIT1C19	User Experience & Interface Design	1	3
CIT1C20	Coding & Development Project	1	4
CMC1C08	Network Technology	1	4
CCD2C03	Ethical Hacking & Intrusion Prevention	2	4
CCD2C04	Forensics in Digital Security	2	4
CCD2C05	IT Security Management & Audit	2	4
CCD2C06	Servers Administration & Security	2	4
CCD2C08	Secure Web Applications	2	4
CCF2C01	Network Security	2	4
CDF3C01	Incident Response & Management	3	4
CMP3602	Major Project	3	10

## DIPLOMA SUBJECTS – ELECTIVE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Digital Forensics</u>			
CDF2C02	Digital Media Forensics	2	4
CDF2C04	Investigation Methodology & Techniques	2	4
CDF2C05	Application Forensics	2	4
CIG2C06	Data Security & Governance	2	4
<u>Enterprise Security</u>			
CCD2C09	Enterprise System Security & Assurance	2	4
CFI2C03	IT Project Management	2	4
CMC2P52	IoT Security & Privacy	2	4
CCD3C01	Security Technology & Innovation	3	4

# Financial Business Informatics



In the local and global banking and financial services industry, there is demand for professionals who possess information technology skills and a sound understanding of financial business processes. Such techno-strategists, with their dual skills, are sought after because they can contribute significantly to the organisations they join.

This course equips you with the knowledge and skills to be technically and financially savvy. You will learn how banks and financial institutions are structured to operate in the global financial markets. Your knowledge of IT and financial services will give you a distinct advantage in seeking employment in financial organisations or when you create a financial technology (FinTech) startup venture.

In your first year of studies, you will acquire strong foundation IT skills in areas such as software development, networking and data analytics. In your second year, you build sound industry-relevant competencies in financial technologies. In your final year, you will get hands-on experience through internship attachments to banks, financial institutions and fintech startups. This will also provide you with the opportunity to apply the knowledge you have acquired in your first two years and pick up important people skills so that you develop sensitivity to the needs of clients and organisations.

Upon graduating, our students can pursue further studies through the Earn & Learn Programme which enables them to work and deepen their skills, or they can also undertake courses at local or overseas universities.



With dual skills in IT banking processes and a keen knowledge of key financial systems, students from this course will be able to support investment operations as well as contribute as business analysts skilled in the banking domain. The training these students receive in Thomson Reuters products, enables them to help customers become more efficient and equips them to lead in the evolution of the global financial market.

Mr Alfred Lee  
Managing Director  
ASEAN  
Thomson Reuters

## Career Opportunities

With unique dual skills in finance and IT, you are well-positioned for careers in financial institutions, and business/IT consulting firms. You can look forward to jobs such as financial systems consultants, IT/business analysts or financial products settlements specialists. You could also look forward to joining the exciting financial technology (fintech) industry or developing your own start-up company.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 72 credit units
Elective Subjects	: min 8 credit units
Total Credit Units Completed	: min 120 credit units

## Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

## Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

## Minimum Entry Requirements

English Language (EL1) *	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
Any two other subjects	Grades 1 - 6

To be eligible for selection, applicants must also have sat for one of the following subjects: Additional Combined Science, Additional Science, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Human & Social Biology, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

*\* Sijil Pelajaran Malaysia (SPM)/ Unified Examination Chinese (UEC) holders must have a minimum of grade 6 for the relevant English Language subject (e.g. Bahasa Inggeris).*

*Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.*

## Course Structure

TP FUNDAMENTALS (TPFun) SUBJECTS				
SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS	
CCS1006	Communication & Information Literacy	1	2	
CCS1007	Workplace Communication	1	2	
CCS1008	Persuasive Communication	1	2	
CGS1002	Global Studies	1	3	
CGS1003	Managing Diversity at Work*	1	3	
CGS1004	Global Citizenship & Community Development*	1	3	
CGS1005	Expressions of Culture*	1	3	
CIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
MCR1002	Career Readiness 2	1	1	
MCR1003	Career Readiness 3	1	1	
TGL1001	Guided Learning	1	3	
CSI3004	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

### DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1007	Basic Business Finance	1	4
CCF1C02	IT Systems Security Essentials	1	4
CIA1C06	Database Application Development	1	4
CIA1C07	Logic & Mathematics	1	3
CIA1C10	Data Analytics	1	4
CIT1C14	Data Structures & Algorithms	1	4
CIT1C18	Computational Thinking	1	4
CIT1C19	User Experience & Interface Design	1	3
CIT1C20	Coding & Development Project	1	4
CMC1C08	Network Technology	1	4
CFI2C11	Banking Processes & Automation	2	3
CFI2C12	FinTech Innovations	2	4
CFI2C13	Open Banking App Development	2	4
CIT2C18	Mobile App Development	2	4
CFI3C01	Risk & Governance	3	4
CFI3C04	Wealth & Portfolio Management	3	4
CMP3801	Major Project	3	10

### DIPLOMA SUBJECTS – ELECTIVE CLUSTERS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Digital Payment</u>			
CFI2E06	Digital Payment & Lending	2	4
CFI2E07	Distributed Ledgers & Blockchain	2	4
<u>Business Analytics</u>			
CBA2C02	Data Mining & Business Analytics	2	4
CIA2C13	Data Visualisation	2	4

# Game Design & Development



Today, games have evolved beyond those like the World of Warcraft and Halo. Games are no longer confined to gaming machines. Immersive media and AR/VR are making games come alive in ways no one ever imagined before and they can reach many more people. At TP, we focus on developing students' skills in Serious Games. Serious Games are those that go beyond entertainment. The demand for them is increasing, with many being developed in the form of simulations and training for different sectors such as healthcare and the military. With Singapore hosting a large gaming industry, there is a need for highly skilled game developers and designers who can use the latest immersive technologies to work on both the entertainment and serious games.

Any person can play a serious or video game; but to successfully develop a game that excites, engages, and educates an audience requires skill. These include skills in concepts – such as digital storyboarding, production – including 2D/3D animation, immersive technologies (AR/VR) and publication.

We prepare you to be industry relevant with certifications from our industry partners such as Autodesk and Unity.

Our subjects allow you to have a strong understanding of and experience in the immersive technologies behind serious and video games, giving you a firm grasp of the end-to-end process to develop a successful game.

Our lecturers, several of whom have worked on some of the world's best-selling video game titles, specialise in various areas of game production. They will help you acquire the skills to create your games from the initial stages of concept development and design, through to programming and the final stages of publishing a game.

To give you a head start in the industry, you will work in the Select-Start Studios taking on real-world projects. Some of our students' projects include commercially available iPhone and Android games, as well as serious games related to training and simulation for different industry sectors. You will also have the chance to be attached to leading game developers, overseas companies and universities for your internship.

Upon graduating, you can pursue further studies through the Earn & Learn Programme which enables you to work and deepen your skills, or you can also undertake courses at local or overseas universities.



The potential for serious games is growing exponentially in recent years. The market growth rate is 20.2% and its revenues will more than double to \$8.1 billion by 2022, up from the \$3.2 billion reached in 2017. These are the games that are utilised for serious purposes such as health and education. TP's students from the Game Design & Development course are well positioned to reap the opportunities in this new digital industry.

Ivan Boo  
Director, Serious Games Asia  
Chairman, Serious Games Association (Singapore)

## Career Opportunities

You will graduate with the skills to fill the following types of positions: applications developer, game developer/programmer, level designer/game designer, and AR/VR developer.

## Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Fundamentals Subjects	: 40 credit units
Diploma Subjects	
Core Subjects	: 72 credit units
Elective Subjects	: min 8 credit units
Total Credit Units Completed	: min 120 credit units

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CGS1005	Expressions of Culture*	1	3	
CIN1001	Innovation & Entrepreneurship	1	2	
GCC1001	Current Issues & Critical Thinking	1	2	
LEA1011	Leadership: Essential Attributes & Practice 1	1	1	
LEA1012	Leadership: Essential Attributes & Practice 2	1	1	
LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
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TGL1001	Guided Learning	1	3	
CSI3004	Student Internship Programme	3	16	

\* Students must choose to take either one of these three subjects or TGL1001 Guided Learning.

## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCF1C02	IT Systems Security Essentials	1	4
CGE1C10	Game UiUx	1	4
CIA1C06	Database Application Development	1	4
CIA1C07	Logic & Mathematics	1	3
CIA1C10	Data Analytics	1	4
CIT1C14	Data Structures & Algorithms	1	4
CIT1C18	Computational Thinking	1	4
CIT1C19	User Experience & Interface Design	1	3
CIT1C20	Coding & Development Project	1	4
CMC1C08	Network Technology	1	4
CGE2C12	Game Modelling	2	4
CGE2C15	Game Math & Physics	2	4
CGE2C16	Game Development	2	4
CGE2C17	Game Development Project	2	4
CGE2C19	Programming with Game Engines	2	4
CGE2C20	Game Design	2	4
CMP3702	Major Project	3	10

## DIPLOMA SUBJECTS – ELECTIVE CLUSTERS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Advanced Game Design</u>			
CGE2P21	Advanced Game Modelling	2	4
CGE3E02	Advanced Game Design	3	4
<u>Advanced Game Programming</u>			
CGE2E05	Programming for Procedural Game Content	2	4
CGE3E01	Game AI	3	4

# Information Technology



How does my mobile app locate the nearest Uber? How does my home know to turn on the lights 5 minutes before I get there? How do self-driving cars learn to drive on their own? How does a robot recognize my speech and reply? The answers to all these questions and much more share one common thing: they are all created through and driven by information technology.

In today's world artificial intelligence-based applications, mobile applications, data analytics and the Internet of Things (IoT) are driving innovation and disrupting everything around us. Graduates from this course are able to develop innovative software solutions through coding that will transform and disrupt society in a meaningful way. If you are passionate about transforming the culture and environment around you through IT, then consider this course in Information Technology.

You have two clusters of elective subjects to choose in this course:

- Business Analytics Cluster which focuses on analysing and interpreting data and developing visualisations using dashboards.
- Game Development Cluster which focuses on the knowledge and skills needed to design and develop games.

In your final year, you will integrate the knowledge that you have acquired to complete a major project. You will also be attached to either a local or overseas company as an intern and this will provide you an opportunity to apply your skills in a real work environment and also prepare you to contribute as an IT professional when you graduate.

This course has an established track record of producing highly successful students who have won top positions in national and international IT software applications and development competitions as well as create their own start-up companies. Upon graduating, our students can pursue further studies through the Earn & Learn Programme which enables them to work and deepen their skills, or they can also undertake courses at local or overseas universities.



The challenges facing businesses today require solutions that are grounded on innovation in technology. We are also seeing several disruptive trends such as artificial intelligence, block chain, data analytics, DevOps and the Internet of Things (IoT), which requires the workforce of the future to adapt to the ever changing landscape. This future workforce needs to be agile and flexible in delivering innovative technology solutions. The Diploma in Information Technology course at Temasek Polytechnic helps provide a solid foundation for developing IT professionals for the industry.

Sam Liew  
Managing Director  
Accenture Singapore

## Career Opportunities

With a broad-based education in IT, your employment prospects are excellent. You will be able to fill positions such as applications developers, systems analysts, IT consulting analysts and platform engineers in government organisations, software houses, large multinational corporations and financial institutions.

## Graduation Requirements

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LEA1013	Leadership: Essential Attributes & Practice 3	1	1	
LSW1002	Sports & Wellness	1	2	
MCR1001	Career Readiness 1	1	1	
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## DIPLOMA SUBJECTS – CORE SUBJECTS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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CIA1C06	Database Application Development	1	4
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CIA1C10	Data Analytics	1	4
CIT1C14	Data Structures & Algorithms	1	4
CIT1C18	Computational Thinking	1	4
CIT1C19	User Experience & Interface Design	1	3
CIT1C20	Coding & Development Project	1	4
CMC1C08	Network Technology	1	4
CGE2C11	Object-Oriented Analysis & Design	2	4
CIT2C18	Mobile App Development	2	4
CIT2C19	Software Quality Assurance	2	4
CIT2C20	Full Stack Web Development	2	4
CIT2C21	Microservices	2	4
CMC2C16	IoT Application Development	2	4
CIT3C15	Machine Learning for Developers	3	4
CMP3102	Major Project	3	10

## DIPLOMA SUBJECTS – ELECTIVE CLUSTERS

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
<u>Business Analytics</u>			
CBA2C02	Data Mining & Business Analytics	2	4
CIA2C13	Data Visualisation	2	4
<u>Game Development</u>			
CGE2C16	Game Development	2	4
CGE2C20	Game Design	2	4

# Subject Synopses

## BAF1007 Basic Business Finance

This subject provides a general overview of the balance sheet and profit and loss statement of the company. It also provides a basic understanding of the sources and allocation of funds within a business enterprise, and an appreciation of some of the financial tools and techniques used by the financial manager in the management of funds and other financial resources.

## CCD2C03 Ethical Hacking & Intrusion Prevention

This subject discusses threats on the Internet and provides an understanding of how a cyber-attacker will penetrate a network. It equips you with the principles and practices of preventing such attacks, discussing threats such as malicious codes, website defacing and hacking, illegal access to unauthorised information, privacy violations, distributed denial of services and cyber terrorism. You will acquire knowledge of potential threats, various penetration strategies and methods, and the respective counter measures. You will also learn the principles of creating a secure network design.

## CCD2C04 Forensics in Digital Security

This subject covers the concept and techniques required to discover and investigate evidence from various digital storage devices. Topics include using common tools and commercial toolsets for extraction and analysis of digital evidence. Network traffic capture and analysis will also be discussed and investigated for the tracing of specific information and source of attacks.

## CCD2C05 IT Security Management & Audit

This subject aims to familiarise you with the various IT security policies processes and procedures, as well as best practices in industry and government. You will learn about the associated standards for risk management and the management of IT security. You will also learn how to plan, execute, report and follow up on an information security management system audit.

## CCD2C06 Servers Administration & Security

This subject covers the concept and techniques required to configure and administer a typical networked server using common operating systems in the industry. Topics include installation of a server system, configuration of devices, disks and file systems with security configuration of Local Area Network (LAN) and Wide Area Network (WAN) environments. Administering of key server services, using various tools and system scripting to monitor and analyse its performance and security will be discussed and applied. The subject also covers the concepts of encryption methodology, Public Key Infrastructure, key distribution and authentication.

## CCD2C08 Secure Web Applications

This subject focuses on secure web application design and development. It discusses the inherent threats and vulnerabilities of web applications and the corresponding countermeasures. In addition, it includes industry best practices such as OWASP (Open Web Application Security Project) Top Ten Web Application Vulnerabilities.

## CCD2C09 Enterprise System Security & Assurance

The subject covers the security risks associated with the deployment and use of enterprise level server operating systems as well as services such as email, database, secure wired and wireless access and web. The subject teaches assessment of security risks when these systems are integrated and conducting penetration testing and incident response to ensure the integrity and security of the enterprise systems.

## CCD3C01 Security Technology & Innovation

This subject covers topics such as security trends and technologies in the industry, the types of innovation, key elements of innovation and innovation skills required to move progressively from idea to impact. It discusses topics on security innovation relating to the methods, ideas, production, market needs, effective processes, impact and needs of customers.

## CCF1C02 IT Systems Security Essentials

This subject introduces statutes and ethical issues pertaining to IT. Topics covered include the Computer Misuse and Cybersecurity Act, Personal Data Protection Act and Intellectual Property Rights. The subject also introduces key principles of Information security namely confidentiality, integrity and availability and their application in various security scenarios. Topics covered also include international standards, security policies, procedures, and processes to protect IT systems against cyber-attacks and information breaches.

## CCF2C01 Network Security

This subject introduces internetworking security technologies, including configuring network-based access control lists, managing network firewalls, configuring logging and remote management. The subject also covers the configuration of authentication, authorisation and accounting on network devices, customising privilege levels and views.

## CCS1006 Communication & Information Literacy

In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the **Message, Audience, Purpose** and **Strategy** (MAPS) when writing and delivering oral presentations.

## CCS1007 Workplace Communication

In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying **Message, Audience, Purpose** and **Strategy** (MAPS) will be covered.

## CCS1008 Persuasive Communication

In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) will also be applied when engaging in verbal and written communication.

## CDA2C02 Data Mining and Business Analytics

This subject introduces the fundamental concepts of machine learning. Topics covered include supervised and unsupervised learning and classification.

## CDF2C02 Digital Media Forensics

This subject covers three main areas: Mobile Device Forensics, Image & Video Forensics, and Correlation & Artificial Intelligence. You will be using different tools to extract and analyse digital media data from various mobile devices. Fundamental elements of digital photos and digital videos will also be taught. Different image and video enhancement techniques to process evidence for investigation will be covered. Matching and correlation techniques, including the use of artificial intelligence, will be covered as well.

## CDF2C04 Investigation Methodology & Techniques

This subject introduces you to the methodology and techniques of analysing multiple sources of digital evidence to determine the cause and effect of an incident. The topics in the subject include the application of best practices and techniques to relate digital evidence to cybercrimes. You will review various case facts to determine how they are related to a crime, reconstruct an incident as well as produce and present findings in a manner that is acceptable to a court of law. You will also go through case examples on best practices and how cause and effect were derived during an investigation.

## CDF2C05 Application Forensics

This subject covers the investigation of applications such as web browsers, word processors and standalone executables, as well as Internet applications such as emails and social networking websites, in the context of digital forensics. These applications may be used for illegitimate means or to introduce malicious software into a computer system. In these cases, digital forensic analysis would be carried out to determine the source and extent of the damage.

## CDF3C01 Incident Response & Management

This subject covers the policies, plans and procedures for computer security incident response of events such as denial of service, malicious code and authorisation access. It establishes proper processes for assessing the impact of incident on business and implements effective methods of collection, analysis and reporting of data.

## CFI2C03 IT Project Management

This subject covers the key processes from project initiation to project closure such as project planning, project monitoring and control, resource management, project implementation and closure.

## CFI2C11 Banking Processes and Automation

This subject covers retail banking processes, design thinking model and analysis techniques. It will also cover VBA programming and use advance Excel macros creation to streamline retail operational processes as well as implement data processes automation.

## CFI2C12 FinTech Innovations

This subject introduces you to core financial services, banking and FinTech business models. You will also learn and compare the current financial processes to new Fintech business models. Disruptive trends like digital payments, blockchain and tokenisations, crowdfunding, Online lending, insurtech etc will also be covered.

## CFI2C13 Open Banking App Development

This subject introduces you to the different types of financial banking instruments available in the financial system. It will also cover banking concepts and Open Banking API infrastructure, enabling you to build customer-centric platforms.

## CFI2E06 Digital Payment and Lending

This subject introduces you to the concepts, instruments and technologies used in lending & payment services in the financial market. It also covers the use of FinTech and disruptive ideas that are changing the landscape of lending & payment services.

## CFI2E07 Distributed Ledgers and Blockchain

This subject introduces you to the concept of distributed ledgers and the technical principles and implementation of Blockchain. You will also develop an understanding of the concept of ledgers decentralisation, its impact and relationship with blockchain technology.

## CFI3C01 Risk and Governance

This subject introduces the Monetary Authority of Singapore (MAS) regulations and risk management guidelines for financial institutions. Topics covered include the MAS Act, internal controls for risk management, credit risk management, market risk management, operational risk management, technology risk management, and audit considerations.

## CFI3C04 Wealth & Portfolio Management

This subject introduces the financial planning concepts and techniques used in designing a portfolio for high net worth clients and organisations. This subject will also cover various models of portfolio management. Topics covered include overview of the wealth management advisory process, investment and portfolio management, client relationship management, investment fund products and industry-company analysis using current tools and techniques.

## CGE1C10 Game UiUx

This subject focuses on user interfaces and the user experiences of interaction within the game. You will learn the basics of how to create effective game interfaces using the appropriate tools and techniques, as well as understand the user perspectives and experiences of users interacting with game interfaces.

## CGE2C11 Object-Oriented Analysis & Design

This subject introduces object-oriented analysis and design (OOAD) techniques using a suitable tool. The topics covered include use case model, use case specifications, domain model, sequence diagrams, view of participating classes (VOPC), database design and mapping class diagram to code.

## CGE2C12 Game Modelling

This subject will introduce you to the 3D model creation workflow specifically for the game production pipeline used within the context of game development. You will learn to use Polygon Mesh construction methods and texturing concepts for 3D game production. This subject also introduces Digital Content Creation (DCC) tools that you will apply to 3D modelling techniques such as low-poly meshing and digital texturing practices such as using coordinate mapping function, and photographic texture creation for crafting 3D in-game art assets.

## CGE2C15 Game Math & Physics

This subject will teach you the mathematics and physics concepts, principles and formulas that are crucial to developing games that look realistic, and how to apply these concepts into game situations such as simulating rigid-body collisions using momentum and energy. The subject includes geometry, trigonometry, vectors and matrices, and physics concepts, such as Newton's Laws of Motion and Forces and Energy, which will enable you to simulate realistic motion in games.

## CGE2C16 Game Development

This subject provides you with the knowledge and skills to develop graphical interactive games through the use of existing game libraries and to create the component parts of a game, both assets and programming code, and then bring them together to produce a complete game. The subject covers game development techniques such as sprite creation, rendering and animation; collision detection; the main game loop; event handling and control of the frame rate. The in-game usage of sound effects will also be taught, as well as key programming concepts required in game development such as memory management, programming standards and debugging.

## CGE2C17 Game Development Project

This subject introduces you to the key processes in the pre-game production, game production and post-game production stages. Topics on game industry roles and responsibilities, game development methodology, programming, design techniques and game-testing and quality assurance will also be covered.

## CGE2C19 Programming with Game Engines

This subject introduces programming of games using Game Engine. The subject will cover different game programming techniques and design pattern. You will be able to employ the techniques and used in conjunction with game engines.

## CGE2C20 Game Design

This subject emphasises the use of game design to improve ideas before and during implementation. It covers various aspects of game design, from initial target audience, player behaviour and attitude to aspects affecting implementation within the actual video game. By examining various successful video games within different genres, you will learn to include a variety of attributes in your video games such as motivation for the player and being able to generate re-playability.

## CGE2E05 Programming for Procedural Game Content

This subject focuses on programming specifically for procedurally generated content within a game. You will explore the techniques and approaches using a game engine to build procedural generated content for optimised performance.

## CGE2P21 Advanced Game Modelling

This subject teaches you key techniques used in today's game industry for game character creation. You will learn to produce Object Space Normal Map and 3D game characters with complete texture maps and optimisation. This subject also covers the game character production workflow such as character-based modelling method, UV mapping, character mesh detailing and texture painting with digital sculpting tool, and techniques such as texture map baking approach and game model optimisation technique such as Level of Detail (LOD).

## CGE3E01 Game AI

The subject introduces the concept of AI within a game engine. You will learn the basic theories behind AI and explore techniques to apply AI using a game engine for various game types.

## CGE3E02 Advanced Game Design

The subject emphasises the use of advanced game and level design concepts to improve ideas before and during implementation. You will be analysing specific aspects of games, their appearance historically and their impact to the player. Arranging and producing a level will give you hands-on experience with factors like spawn point placement and level objectives construction.

## CGS1002 Global Studies

This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.

## CGS1003 Managing Diversity at Work

You will examine your own identity, study different forms of diversity and apply strategies to inspire positive collaboration in a diverse workplace. Through a residential stay, you will have the opportunity to experience living and working with peers from different backgrounds.

## CGS1004 Global Citizenship & Community Development

This subject highlights the inter-connectedness of the world today, bringing about what it means to be a Global Citizen. You will gain an awareness of the impacts of globalisation and the concepts of social responsibility and sustainable community development. This subject also challenges you to be actively engaged in a social or environmental project.

## CGS1005 Expressions of Culture

Whether telling stories, building monuments or celebrating rites of passage, expressions of culture are at the core of cultural diversity. In this subject, everyday objects, artistic creations and popular culture are explored as ways of understanding the values and beliefs of a society. You will explain the role of cultural heritage stakeholders and learn to conduct cultural story-telling. By taking this subject, you will benefit by acquiring a greater understanding and appreciation of the complexities surrounding our cultural assets.

## CIA1C06 Database Application Development

This subject will introduce the fundamental concepts of relational database systems, the design methods specific to relational database, database manipulation using a database query language, and the techniques of implementing relational databases. It will also cover implementation of simple application to access relational database.

## CIA1C07 Logic & Mathematics

The subject covers logic, sets, functions, recursion and graphs. It covers mathematical processes for developing algorithms in computing and other real-life applications. Topics covered also include the fundamental mathematical concepts needed for computing.

## CIA1C10 Data Analytics

This subject introduces the concepts and techniques of data analytics and its importance at work and in society. You will cover the data analytics lifecycle, the formulation of business analytics goals, performance of exploratory data analysis, preparation of data for analysis, application of basic analytics techniques and presentation of insights derived.

## CIA2C01 Data Warehousing Modelling

This subject equips you with the knowledge and skills on data modelling techniques for data warehousing. On completion of this subject, you would be able to design and implement a data warehouse model. The subject introduces the fundamental concepts of data warehouse modelling and covers concepts and principles of data warehouse, introduction to data warehouse model design, data warehouse model implementation and data warehouse applications and tools.

## CIA2C05 Data Mining Concepts & Techniques

This subject aims to equip you with the knowledge and skills to use data mining tools to analyse and segment data to explore and discover previously unknown patterns and relationships to generate useful information. This subject covers concepts, methodology, techniques and application of data mining. Several popular data mining techniques, such as cluster analysis, association analysis and decision tree will also be introduced. You will use software tools to perform these analyses and make decisions based on the analysis results.

## CIA2C06 Business Intelligence Applications

This subject equips you with the knowledge and skills to develop Business Intelligence applications for an organisation so that its business performance is aligned to identified goals. The subject covers the concepts, techniques and emerging technologies of Business Intelligence applications development. You will also learn the ethical and legal issues in developing Business Intelligence applications.

## CIA2C11 Predictive & Prescriptive Analytics

This subject provides you with the knowledge and skills to create a predictive model based on historical data to predict future trends and behaviours. In addition, you will be taught techniques to propose better decision to take advantage of a future opportunity or mitigate a future risk.

## CIA2C12 Quantitative Analysis

The subject covers linear regression, correlation between a dependent variable and independent variable, analysis of variance, chi-squared tests, two-way analysis of variance (ANOVA) and multivariate analysis.

## CIA2C13 Data Visualisation

This subject covers graphing fundamentals, graphing properties and building dashboard for reporting purposes using relevant statistical modelling and analysis techniques. Topics covered include the preparation of reports on data analysis to support managerial decision-making.

## CIA2C14 Data Science Essentials

This subject equips you with the knowledge and skills in the emerging field of data science. You will cover the data science life-cycle, history and context, as well as its landscape. Topics covered include data exploration and analysis techniques to discover new knowledge from data to aid data-driven decisions in an intelligent and informed way.

## CIA2E01 Text & Social Media Analytics

This subject equips you with the knowledge and skills to process textual data and social media for analytical insight. It covers topics such as social media analytics concepts and techniques, text analytics process and techniques such as information extraction, text categorisation, cluster analysis and sentiment analysis.

## CIA3E01 Applied Data Science in a Business Domain

This subject introduces how data science is used in the various industries (e.g. Financial Services / Retail / Logistics) to develop actionable insights for better decision making to improve businesses. It provides opportunities for you to integrate and apply their skills acquired through the various modules for this end-to-end implementation in specific business domain. Project management and agile methodologies will also be introduced in this subject.

## CIG2C01 Big Data Architecture & Systems

This subject equips you with the knowledge and skills to design a big data system in an organisation, as well as to store and apply structured and unstructured data in the context of big data integration. This subject introduces the emerging data architectures driven by “Big Data” adoption and will cover new paradigms of data systems within the realm of “Big Data,” which evolved from social media networks. It will also cover the concepts and techniques that have driven Big Data adoption and a comparison of these with traditional data store architectures such as structured databases and data warehouses. Emerging data architectures such as real-time and complex event processing tools will also be covered.

## CIG2C02 Programming for Big Data

This subject equips you with the knowledge and skills to program a data management application to manage big data. It covers commonly used scripting languages (such as Python) and how it can be used for big data collection and processing. The use of data analysis, web scraping and data structures in the context of big data will be covered. Other languages for data integration and processing (such as R) will be covered as well.

## CIG2C04 Data Marshalling & Transformation

This subject equips you with the knowledge and skills of data mining and to perform data marshalling and transformation. You will be able to gather and transform data into standardised format for network transmission and storage. This subject also covers the fundamental concepts of data mining, data marshalling and data transformation techniques. Conversion of data objects into data streams and standard industry data formats with the use of techniques and tools will be introduced. Implementation of data marshalling and transformation in big data systems will also be covered.

## CIG2C06 Data Security & Governance

This subject covers data security and governance as a quality control discipline for assessing, managing, using, improving, monitoring, maintaining, and protecting organisational information. You will learn about concepts such as data security and access, data protection, data policies, business process management, and risk management surrounding the handling of data in an organisation.

## CIT1C14 Data Structures & Algorithms

This subject introduces you to the fundamentals of recursion and data structures in solving problems using a programming language. Topics covered include stacks, queues, linked lists and trees. Searching techniques and sorting algorithms.

## CIT1C18 Computational Thinking

This subject introduces you to the fundamentals of computational thinking and their application in developing programming solutions to problems. Topics covered include programming concepts, simple data structures and programming techniques.

## CIT1C19 User Experience & Interface Design

This subject introduces you to the concept of Human-Centered Design, and its practice to create useful digital products and interfaces that offer great user experience (Ux). Grounded on the lean product development cycle, the topics covered in this subject include Designing Interfaces, Need Findings, Sketching and Prototyping for Interactive Experience, and Testing.

## CIT1C20 Coding & Development Project

This subject introduces you to coding principles and practices using an object-oriented approach. The subject also introduces the development of an IT application using the latest technologies. Topics covered include object and classes, composition, simple data structures, application architecture, design and development.

## CIT2C18 Mobile App Development

This subject introduces the techniques and practices of programming and implementation of applications on multiple devices and platforms. Topics covered include an overview of how mobile applications are used in various industries, user interface and mobile application development across platforms.

## CIT2C19 Software Quality Assurance

This subject introduces the theory and practice of software quality assurance. Topics covered include tools for software testing, testing specifications, black-box and white-box testing, code inspections, metrics, testing documentation, beta testing and test management.

## CIT2C20 Full Stack Web Development

This subject introduces the concepts of full-stack web-based applications. Topics covered include designing web pages and implementing the front-end and back-end technologies of a web application. Technological and design issues of web-based application development will also be discussed.

## CIT2C21 Microservices

This subject introduces the concepts of microservices in the development of applications. Topics covered include architecture design, development and testing of modular services.

## CIT3C15 Machine Learning for Developers

This subject covers the fundamentals of machine learning principles and practices. Supervised and unsupervised learning, neural networks and deep learning will also be covered.

## CIN1001 Innovation & Entrepreneurship

The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. You will first be introduced to the Design Thinking framework and learn how to develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. In addition, commercial awareness will be imbued in you through the LEAN Startup framework, idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding/crowdsourcing avenues.

## CMC1C08 Network Technology

This subject covers the fundamentals of networking and its related technologies. Topics covered include network protocols and communications, OSI and TCP/IP networking model, IP addressing, virtual local area networks (VLANs), static and dynamic routing, network address translation and wireless networking.

## CMC2C16 IoT Application Development

This subject covers the concepts of Distributed System Architecture like Service-Oriented Architecture, Representation State Transfer (REST) and Web Services, identification of technology and design principles for connected devices and prototyping techniques for writing web services.

## CMC2P52 IoT Security & Privacy

This subject covers the security and privacy issues involved in the implementation of IoT applications and services. You will learn topics which cover cryptography, capability, access-control mechanisms, authentication models and privacy support through data abstraction, integration and data synchronisation.

## CMP3102 Major Project

This subject involves the application of knowledge in a practical learning situation. The subject covers acquiring new knowledge in technology and skills in project management, problem solving and communication.

### **CMP3103 Major Project**

This subject equips you with the skills and knowledge to apply the acquired business intelligence & analytics skills and knowledge from your curriculum to the design and development of a project deliverable. The subject involves the integration of analysis, design, development, implementation, testing, project management, presentation, and interpersonal skills as well as acquiring new skills in a domain-specific area to solving real-life problems.

### **CMP3202 Major Project**

This subject equips you with the skills and knowledge to apply the acquired big data management and governance skills and knowledge from the various subjects in the diploma to the design and development of a project deliverable. This subject involves the integration and application of knowledge and skills developed from the various subjects in the curriculum. It will provide an opportunity to develop a practical understanding of the products, methodologies, processes, systems, project management and presentation skills needed for big data management and governance application projects.

### **CMP3602 Major Project**

Through this subject, you learn to integrate and apply the knowledge and skills learnt from other subjects in the Cybersecurity & Digital Forensics curriculum. The subject provides an opportunity for the practical application of both technical and soft skills such as project management, presentation and problem solving.

### **CMP3702 Major Project**

This subject helps you integrate and apply the knowledge and skills acquired from the various subjects in the Game Design & Development curriculum. It helps you develop a practical understanding of game development methodology, programming and design techniques, quality assurance, project management and presentation skills.

### **CMP3801 Major Project**

This subject involves the integration and application of knowledge to a project in a practical learning situation. The subject will provide an opportunity for the development of a practical understanding of the products, methodologies, processes, systems, project management and presentation skills.

### **CSI3004 Student Internship Programme**

This subject has a structured programme that will help to develop important workplace skills for application in a real work environment. The subject will cover a pre-internship training programme and a mentorship programme with the industry. The subject will also cover the roles and functions of an IT professional in an industry and ability to contribute effectively with a high level of professionalism in the workplace.

### **GCC1001 Current Issues & Critical Thinking**

This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals.

### **LEA1011/1012/1013 Leadership: Essential Attributes & Practice (LEAP)**

LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.

### **LSW1002 Sports & Wellness**

This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.

### **MCR1001/MCR1002/MCR1003 Career Readiness**

This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. It aims to cultivate the necessary attitudes, skills and knowledge to conduct yourself professionally, adapt and respond to the changing job market environment.

### **TGL1001 Guided Learning**

This is a subject where you will be free to pursue an area of interest through a self-directed approach, guided by staff. You will be expected to demonstrate a sense of curiosity for learning, initiate an opportunity to acquire knowledge and skills, and reflect on your learning journey throughout the subject.



# Admission & Requirements

## General Information on Application

- All applications are to be submitted online or using the prescribed application form.
- Duplicate/multiple applications submitted under the same admission exercise, in any particular intake, will be rendered invalid and rejected.
- Applicants are personally responsible for providing accurate and complete information in their application. Applications which contain inaccurate, false or missing information will be rendered invalid. Students who are admitted on such basis will be asked to withdraw from their course of study.
- Acceptance of an application does not imply any commitment to admit an applicant.

# Application Procedures

Depending on the qualification obtained, applicants are invited to apply through the respective admissions exercises shown in the following tables.

QUALIFICATION	SINGAPORE-CAMBRIDGE GCE O LEVEL	
TYPE OF ADMISSIONS EXERCISE	Joint Admissions Exercise (JAE) ^	Early Admissions Exercise (EAE)
WHO MAY APPLY	<p><b>Singapore Citizens or Singapore Permanent Residents</b></p> <ul style="list-style-type: none"> <li>• Singapore-Cambridge GCE O Level examination results (2017 or earlier)</li> <li>• Current JC students or Singapore-Cambridge GCE A Level holders seeking admission based on Singapore-Cambridge GCE O Level examination results.</li> </ul> <p><b>International Students</b></p> <ul style="list-style-type: none"> <li>• From a government, government-aided or independent school (excluding private schools) with 2017 Singapore-Cambridge GCE O Level examination results.</li> </ul>	<p><b>Singapore Citizens or Singapore Permanent Residents</b></p> <ul style="list-style-type: none"> <li>• Registered to sit for the Singapore-Cambridge GCE O Level examinations in the year of the EAE exercise.</li> </ul> <p><b>International Students</b></p> <ul style="list-style-type: none"> <li>• Enrolled in government, government-aided or independent schools (excluding private schools) and;</li> <li>• Registered to sit for the Singapore-Cambridge GCE O Level examinations in the year of the EAE exercise.</li> </ul>
WHEN TO APPLY	<p>Six calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results.</p> <p>Refer to <a href="http://www.moe.gov.sg">www.moe.gov.sg</a> and press release in the media.</p>	<p>Around June/July</p> <p>Refer to <a href="http://www.moe.gov.sg">www.moe.gov.sg</a> for press release and <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a> for latest information.</p>
HOW TO APPLY	<p>Apply online at <a href="https://www.moe.gov.sg/admissions/jae">https://www.moe.gov.sg/admissions/jae</a></p>	<p>Apply online at <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a></p>

QUALIFICATION	SINGAPORE-CAMBRIDGE GCE O LEVEL	
ENTRY REQUIREMENTS	Refer to the section on 'Eligibility & Entry Requirements', respective school sections on the Minimum Entry Requirements and JAE Information Booklet which is available for download at <a href="https://www.moe.gov.sg/admissions/jae">https://www.moe.gov.sg/admissions/jae</a> .	
EXPECTED RELEASE OF POSTING RESULTS	<p>About two weeks after the JAE application period.</p> <p>Refer to the Joint Admissions Exercise Information Booklet or <a href="https://www.moe.gov.sg/admissions/jae">https://www.moe.gov.sg/admissions/jae</a> for the latest information.</p>	<p>In August</p> <p>Refer to <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a> for the latest information.</p> <p>Applicants may check their posting results at <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a></p>
APPLICATION ENQUIRIES	<p>Ministry of Education Customer Service Centre: 6872 2220</p> <p>Email: <a href="mailto:contact@moe.edu.sg">contact@moe.edu.sg</a></p>	<p>Email: <a href="mailto:help@eae.polytechnic.edu.sg">help@eae.polytechnic.edu.sg</a></p>

<sup>^</sup> This section should be read in conjunction with the JAE Information Booklet and Joint-Polytechnic website at [www.polytechnic.edu.sg](http://www.polytechnic.edu.sg).

QUALIFICATION	SINGAPORE-CAMBRIDGE GCE O LEVEL / INTEGRATED PROGRAMME (IP) IN SINGAPORE (YEAR 4)	SINGAPORE-CAMBRIDGE GCE A LEVEL / INTERNATIONAL BACCALAUREATE (IB) DIPLOMA
TYPE OF ADMISSIONS EXERCISE	Direct Admissions Exercise (DAE - Local Qualification)	
WHO MAY APPLY	<ul style="list-style-type: none"> <li>• Holders of Singapore-Cambridge GCE O Levels who are not eligible to apply for courses under the JAE</li> <li>• Applicants who have completed Year 4 of the Integrated Programme (IP) in Singapore</li> </ul>	<ul style="list-style-type: none"> <li>• Holders of Singapore-Cambridge GCE A Level</li> <li>• Applicants who have completed Year 6 of the Integrated Programme (IP) in Singapore and have obtained an IB Diploma.</li> <li>• Applicants may apply to the following diploma courses which allow them to complete the course in 2.5 years, provided they meet the courses' entry requirements:               <ul style="list-style-type: none"> <li>o Biotechnology</li> <li>o Business</li> <li>o Chemical Engineering</li> <li>o Computer Engineering</li> <li>o Cybersecurity &amp; Digital Forensics</li> <li>o Electronics</li> <li>o Information Technology</li> <li>o Mechatronics</li> <li>o Microelectronics</li> </ul> </li> </ul>
WHEN TO APPLY	Six calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results.	<p><u>Holders of IB Diploma</u> Six calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results.</p> <p><u>Holders of Singapore-Cambridge GCE A Level</u> Five calendar days starting from the release of the Singapore-Cambridge GCE A Level examination results.</p>

QUALIFICATION	SINGAPORE-CAMBRIDGE GCE O LEVEL / INTEGRATED PROGRAMME (IP) IN SINGAPORE (YEAR 4)	SINGAPORE-CAMBRIDGE GCE A LEVEL / INTERNATIONAL BACCALAUREATE (IB) DIPLOMA
HOW TO APPLY	<p><u> Holders of Singapore-Cambridge GCE O Level </u> Apply online at <a href="http://www.tp.edu.sg/admissions/admissionexercises">www.tp.edu.sg/admissions/admissionexercises</a></p> <p><u> Applicants from Integrated Programme (IP) in Singapore </u> Via Application form which can be downloaded at <a href="http://www.tp.edu.sg/admissions/admissionexercises">www.tp.edu.sg/admissions/admissionexercises</a></p>	<p><u> Holders of IB Diploma </u> Via Application form which can be downloaded at <a href="http://www.tp.edu.sg/admissions/admissionexercises">www.tp.edu.sg/admissions/admissionexercises</a></p> <p><u> Holders of Singapore-Cambridge GCE A Level </u> Apply online at <a href="http://www.tp.edu.sg/admissions/admissionexercises">www.tp.edu.sg/admissions/admissionexercises</a></p>
ENTRY REQUIREMENTS	Refer to section on “Eligibility & Entry Requirements”, respective school sections on the Minimum Entry Requirements and JAE Information Booklet which is available for download at <a href="https://www.moe.gov.sg/admissions/jae">https://www.moe.gov.sg/admissions/jae</a> .	
EXPECTED RELEASE OF POSTING RESULTS	Around End March/Early April	Around End March/Early April
	Applicants may check their application status online at <a href="http://www.tp.edu.sg/admissions/admission-exercises-application-status">http://www.tp.edu.sg/admissions/admission-exercises-application-status</a>	
OTHERS	<p><u> Applicants from Integrated Programme (IP) in Singapore </u> Admission will be considered based on IP Year 4 results and course team’s assessment. Eligibility is similar to the Singapore-Cambridge GCE O Level.</p>	<ul style="list-style-type: none"> <li>• Entry requirements for 3-year diploma programme is similar to Singapore-Cambridge GCE O Level.</li> <li>• Applicants with good grades in the relevant subjects at their Singapore-Cambridge GCE A Level may apply and be granted subjects exemption on a subject by subject basis. This is only applicable to applicants who have accepted and enrolled into the course offered by the polytechnic. Eligible students seeking exemptions may consult the school advisors or Course Manager for application details during the orientation programme for new students.</li> </ul>
	Former/current polytechnic students (holding any of the above mentioned qualifications) seeking re-admission to the polytechnic may also apply.	

QUALIFICATION	ITE CERTIFICATES			
TYPE OF ADMISSIONS EXERCISE	Early Admissions Exercise for ITE students [EAE(ITE)]	Joint Polytechnic Admissions Exercise (JPAE)		Direct Admissions Exercise (DAE-Local Qualification)
WHO MAY APPLY	ITE students who are in their final year of study of their Nitec and Higher Nitec courses.	Holders of relevant Higher Nitec	Holders of relevant Nitec	Current or ex-polytechnic students seeking re-admission
		Final semester ITE students of relevant Higher Nitec/Nitec Certificate, inclusive of those admitted to ITE under the Direct Entry Scheme to Polytechnic Programme (DPP) offered to Secondary 4 N(A) students		
WHEN TO APPLY	Around June/July  Refer to <a href="http://www.moe.gov.sg">www.moe.gov.sg</a> for press release and <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a> for latest information.	February  Refer to <a href="https://jpae.polytechnic.edu.sg/app">https://jpae.polytechnic.edu.sg/app</a> for the latest information.		Coincide with JPAE  Refer to <a href="http://www.tp.edu.sg/admissions/admissionexercises">www.tp.edu.sg/admissions/admissionexercises</a>
HOW TO APPLY	Apply online at <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a>	Apply online at <a href="https://jpae.polytechnic.edu.sg/app">https://jpae.polytechnic.edu.sg/app</a>		Apply online at <a href="http://www.tp.edu.sg/admissions/admissionexercises">www.tp.edu.sg/admissions/admissionexercises</a>
ENTRY REQUIREMENTS	The minimum GPA requirements for each polytechnic course are:  a) Final net GPA 3.5 and above for Nitec holders (including CCA bonus points); and b) Final net GPA 2.0 and above for Higher Nitec holders (including CCA bonus points).	Refer to <a href="https://jpae.polytechnic.edu.sg/app">https://jpae.polytechnic.edu.sg/app</a> and the section on “Minimum Entry Requirements for ITE Certificate Holders – Higher National ITE Certificate (Higher Nitec)”	Refer to <a href="https://jpae.polytechnic.edu.sg/app">https://jpae.polytechnic.edu.sg/app</a> and the section on “Minimum Entry Requirements for ITE Certificate Holders – National ITE Certificate (Nitec)”	Refer to the section on the “Minimum Entry Requirements for ITE Certificate Holders”

QUALIFICATION	ITE CERTIFICATES		
EXPECTED RELEASE OF POSTING RESULTS	<p>In August</p> <p>Refer to <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a> for the latest information.</p> <p>Applicants may check their posting results at <a href="https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp">https://eae.polytechnic.edu.sg/eaeStudIns/menu.jsp</a></p>	<p>Early April</p> <p>Applicants may check their posting results at <a href="https://jpae.polytechnic.edu.sg/app">https://jpae.polytechnic.edu.sg/app</a></p>	<p>April</p> <p>Applicants may check their application status online at <a href="http://www.tp.edu.sg/admissions/admission-exercises-application-status">http://www.tp.edu.sg/admissions/admission-exercises-application-status</a></p>
APPLICATION ENQUIRIES	<p>Email: <a href="mailto:help@jpeaei.polytechnic.edu.sg">help@jpeaei.polytechnic.edu.sg</a></p>	<p>Email: <a href="mailto:help@jpae.polytechnic.edu.sg">help@jpae.polytechnic.edu.sg</a></p>	<p>Temasek Polytechnic Registrar's Office/Admissions: Tel: 6788 2000 Email: <a href="mailto:admissions@tp.edu.sg">admissions@tp.edu.sg</a></p>
OTHERS	<p>Applicants with good grades in the relevant subjects for their ITE Higher Nitec qualification may apply and be granted subject exemption on a subject by subject basis. This is only applicable to applicants with ITE Higher Nitec qualification who have accepted and enrolled into the course offered by the polytechnic.</p> <p>Eligible students seeking exemptions may consult the school advisors or Course Manager for application details during the orientation programme for new students.</p>		

QUALIFICATION	SINGAPORE-CAMBRIDGE GCE N LEVEL
TYPE OF ADMISSIONS EXERCISE	Polytechnic Foundation Programme Admissions Exercise (PFP AE)
WHO MAY APPLY	<p>Secondary 4 Normal (Academic) students studying in government, government-aided or independent school whom have sat for the Singapore-Cambridge GCE N Level examinations in the preceding year of the PFP exercise and met the minimum entry requirements.</p> <p>Students who are interested in applying to PFP should first progress to Secondary 5 on 2 January 2018.</p> <p>Upon the release of the 2017 Singapore-Cambridge GCE O Level examination results in January 2018, eligible Secondary 4 Normal (Academic) students will be invited to apply for the polytechnic diploma courses of their choice under Polytechnic Foundation Programme.</p>
WHEN TO APPLY	<p>Six calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results.</p> <p>Refer to <a href="https://pfp.polytechnic.edu.sg/PFP/index.html">https://pfp.polytechnic.edu.sg/PFP/index.html</a> for latest information.</p>
HOW TO APPLY	Apply online at <a href="https://pfp.polytechnic.edu.sg/PFP/index.html">https://pfp.polytechnic.edu.sg/PFP/index.html</a>
ENTRY REQUIREMENTS	<p>Secondary 4 Normal (Academic) students who obtained an <b>ELMAB3 (English, Mathematics, Best 3 Subjects) raw aggregate score of 11 points or better</b> (excluding CCA bonus points) and meet the minimum subject requirements at the Singapore-Cambridge GCE N Level examination will be eligible for PFP.</p> <p>Secondary 4 Normal (Academic) students who have sat for Singapore-Cambridge GCE O Level subjects are allowed to combine their Singapore-Cambridge N and O Level examination results to compute their eligibility.</p> <p>Refer to <a href="https://pfp.polytechnic.edu.sg/PFP/pfp_eligibility.html">https://pfp.polytechnic.edu.sg/PFP/pfp_eligibility.html</a> for the latest information.</p>

QUALIFICATION	SINGAPORE-CAMBRIDGE GCE N LEVEL
EXPECTED RELEASE OF POSTING RESULTS	January  Applicants may check their posting results at <a href="https://pfp.polytechnic.edu.sg/PFP/index.html">https://pfp.polytechnic.edu.sg/PFP/index.html</a>
APPLICATION ENQUIRIES	Email: <a href="mailto:help@pfp.polytechnic.edu.sg">help@pfp.polytechnic.edu.sg</a>
OTHERS	Refer to <a href="http://www.tp.edu.sg/courses/full-time-courses/polytechnic-foundation-programme/course-structure/course-list">http://www.tp.edu.sg/courses/full-time-courses/polytechnic-foundation-programme/course-structure/course-list</a> or <a href="https://pfp.polytechnic.edu.sg/PFP/index.html">https://pfp.polytechnic.edu.sg/PFP/index.html</a> for latest information.

QUALIFICATION	MALAYSIA UEC	MALAYSIA SPM	IGCSE	ALL OTHER FOREIGN QUALIFICATIONS
TYPE OF ADMISSIONS EXERCISE	Direct Admissions Exercise (DAE - Foreign Qualifications)			
WHO MAY APPLY	Holders of UEC	Holders of SPM	Holders of IGCSE	Holders of all other foreign qualifications
WHEN TO APPLY	December*	Early March*	Mid-January*	December*
COURSE COMMENCEMENT	April			
HOW TO APPLY	<p>Apply online at <a href="http://www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-foreign">www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-foreign</a></p> <p>All required documents are to be submitted by post or in person <b>within the dates specified in the website.</b></p> <p>Application without the supporting documents will be deemed incomplete and will not be processed</p>			
ENTRY REQUIREMENTS	Refer to <a href="http://www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-foreign">www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-foreign</a> for the respective country's entry requirements.			
EXPECTED RELEASE OF POSTING RESULTS	<p>March/April</p> <p>Applicants may check their application status online at <a href="http://www.tp.edu.sg/admissions/admission-exercises-application-status">http://www.tp.edu.sg/admissions/admission-exercises-application-status</a></p>			
APPLICATION ENQUIRIES	<p>Temasek Polytechnic International Students Office Tel: 6780 5970 Email: <a href="mailto:isohotline@tp.edu.sg">isohotline@tp.edu.sg</a></p>			

Note: \* Applicable to students who are currently waiting for the release of their results. Please check our website at [www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-foreign](http://www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-foreign) for the application period nearer the date of the admission exercises.

# Eligibility & Entry Requirements

To be considered for admission to a course, applicants will have to:

- meet the minimum entry requirements for the course;
- be certified physically and mentally fit to pursue the course. Please refer to the section on “Medical Requirements” for more details;
- attend interviews and undergo any aptitude or other tests, when requested;
- be able to produce the original documents, when requested.

## Minimum Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders

Applicants with a Singapore-Cambridge GCE O Level qualification will be ranked according to their aggregate score of the following Singapore-Cambridge GCE O Level subjects:

- English Language (EL)
- 2 relevant subjects (R2) and
- 2 other best subjects (B2)

Applicants must obtain 26 points or better for the net ELR2B2 aggregate score (including CCA Bonus Points) and meet the minimum entry requirements of the respective courses. Applicants may combine their Singapore-Cambridge GCE O Level examination results of up to two sittings.

Aggregate types and the relevant subject lists are available in the JAE Information Booklet at <https://www.moe.gov.sg/admissions/joint-admissions-exercise>.

Details on the minimum entry requirements of the respective courses can be found under the section on course information or at the Ministry of Education website, <https://www.moe.gov.sg/admissions/joint-admissions-exercise>. Applicants are advised to read the section on the minimum entry requirements in conjunction with the section on Posting Procedure and Annex B – Posting of Applicants and Aggregate Types in the JAE Information Booklet.

# Minimum Entry Requirements for Singapore-Cambridge GCE A Level & IB Diploma Qualification Holders

Applicants with Singapore-Cambridge GCE A Level and IB Diploma qualification who apply for the courses below and meet the minimum entry requirements will be eligible for exemptions and complete their course in 2.5 years:

- Biotechnology ④
- Business
- Chemical Engineering ④
- Computer Engineering ①③④
- Cybersecurity & Digital Forensics ①④
- Electronics ①③④
- Information Technology
- Mechatronics ①③④
- Microelectronics ①③④

Note:

- ① Applicants with severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ③ Applicants with uncontrolled epilepsy or profound hearing loss may have difficulties meeting the course requirements and expectations.  
Interested applicants with these conditions are highly encouraged to contact Temasek Polytechnic for more information.
- ④ Applicants with severe visual impairment may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe visual impairment are highly encouraged to contact Temasek Polytechnic for more information.

Details on the minimum entry requirements of the above courses can be found at the respective Schools' sections of the prospectus and <http://www.tp.edu.sg/admissions/admissionexercises/direct-admissions-exercise-local>.

Singapore-Cambridge GCE A Level qualification & IB Diploma holders may also apply for other three-year diploma courses. Entry requirements for 3-year diploma programme is similar to GCE O Level. Please refer to the "Minimum Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders" for more information.

## Minimum Entry Requirements for Singapore-Cambridge GCE N Level Qualification Holders

Secondary 4 Normal (Academic) students who obtained an ELMAB3 (English, Mathematics, Best 3 Subjects) raw aggregate score of 11 points or better (excluding CCA bonus points) at the Singapore-Cambridge GCE N Level examination will be eligible for the Polytechnic Foundation Programme (PFP), provided that they have also obtained the following :

FOR COURSES FEATURED IN GROUP 1**	MINIMUM REQUIRED GRADES
English Language Syllabus A	3
Mathematics (Syllabus A / Additional)	3
One of the following relevant subjects: <ul style="list-style-type: none"> <li>• Science (Physics, Chemistry)</li> <li>• Science (Physics, Biology)</li> <li>• Science (Chemistry, Biology)</li> <li>• Food and Nutrition</li> <li>• Design and Technology</li> </ul>	3
Any two other subjects, excluding CCA	3

FOR COURSES FEATURED IN GROUP 2**	MINIMUM REQUIRED GRADES
English Language Syllabus A	2
Mathematics (Syllabus A / Additional)	3
One of the following relevant subjects: <ul style="list-style-type: none"> <li>• Principles of Accounts</li> <li>• Literature in English</li> <li>• History</li> <li>• Combined Humanities</li> <li>• Geography</li> <li>• Art</li> </ul>	3
Any two other subjects, excluding CCA	3

\*\*Refer to <http://www.tp.edu.sg/courses/full-time-courses/polytechnic-foundation-programme/course-structure/course-list> for the list of TP courses offered within the respective groups.

Secondary 4 Normal (Academic) students who have sat for Singapore-Cambridge GCE O Level subjects are allowed to combine their Singapore-Cambridge GCE N and O Level examination results to compute their eligibility.

## Minimum Entry Requirements for ITE Certificate Holders

ITE certificate holders with the relevant Higher Nitec/ Nitec may seek admission to TP's full-time diploma courses.

Please refer to the respective tables in the following pages for the list of acceptable ITE certificates for application to the courses.

### Higher National ITE Certificate (Higher Nitec)

To be eligible for consideration for admission, applicants must have obtained the minimum Grade Point Average (GPA) (inclusive of CCA bonus points) and the relevant Higher National ITE Certificate (Higher Nitec)/ ITC/ CBS qualification applicable to the full-time diploma courses as shown in the table below.

Applicants with good grades in the relevant subjects for their Higher Nitec qualification may be granted subject exemption on a subject by subject basis.

Admission is based on academic merit and subject to availability of vacancies.

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS81	Early Childhood Education	Early Childhood Studies	T54	3.0	-	⑤
BS82	Banking Services	Accounting & Finance	T02	3.0	-	
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS83	Hospitality Operations	Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Leisure & Events Management	T61	3.0	-	
		Retail Management	T39	3.0	-	③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS84	Business Studies (Event Management)	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Leisure & Events Management	T61	3.0	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS85	Accounting/ Business Studies (Accounting)	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Leisure & Events Management	T61	3.0	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS86	Business Studies (Administration/ Secretarial)	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Leisure & Events Management	T61	3.0	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS87	International Logistics/ Logistics for International Trade/ Business Studies (Logistics)/ Integrated Logistics Management	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Business Process & Systems Engineering	T43	2.5	-	④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Retail Management	T39	3.0	-	③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS88	Business-Information Technology/ Business Studies (E-Commerce)	Accounting & Finance	T02	3.0	-	
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Information Technology	T30	2.5	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS89	Sport Management/ Business Studies (Sport Management)	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Leisure & Events Management	T61	3.0	-	
		Retail Management	T39	3.0	-	③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS90	Service Management/ Business Studies (Service Management)	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Leisure & Events Management	T61	3.0	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS92	Visual Merchandising	Apparel Design & Merchandising	T20	3.0	-	②④
		Communication Design	T59	3.0	-	②④
		Product & Industrial Design	T35	3.0	-	②③④
		Retail Management	T39	3.0	-	③④
BS94	Retail Merchandising	Apparel Design & Merchandising	T20	3.0	-	②④
		Retail Management	T39	3.0	-	③④
BS95	Passenger Services	Aviation Management & Services	T04	2.5	-	③④
		Culinary & Catering Management	T18	3.0	-	③④
		Hospitality & Tourism Management	T08	3.0	-	
		Leisure & Events Management	T61	3.0	-	
		Retail Management	T39	3.0	-	③④
BS97	Filmmaking (Cinematography)	Digital Film & Television	T23	3.0	-	②④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS98	Event Management	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Leisure & Events Management	T61	3.0	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS99	Human Resource & Administration	Accounting & Finance	T02	3.0	-	
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Culinary & Catering Management	T18	3.0	-	③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑩
		Leisure & Events Management	T61	3.0	-	
Retail Management	T39	3.0	-	③④		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT21	Electro-Mechanical Engineering	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Product & Industrial Design	T35	3.0	-	②③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT22	Mechatronics Engineering	3D Interactive Media Technology	T49	2.5	-	②④
		Aerospace Electronics	T50	2.5	-	②③④⑦
		Aerospace Engineering	T51	2.5	-	②③④⑦
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business Process & Systems Engineering	T43	2.5	-	④
		Clean Energy	T52	2.5	-	①③④
		Common Engineering Programme	T56	2.5	-	③④⑥
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Green Building & Sustainability	T29	2.5	-	③④
		Information Technology	T30	2.5	-	
Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT22	Mechatronics Engineering	Mechatronics	T06	-	3.5	①③④⑧
		Microelectronics	T14	-	3.5	①③④⑧
		Product & Industrial Design	T35	3.0	-	②③④
IT31	Electrical Engineering	Aerospace Electronics	T50	2.5	-	②③④⑦
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Biomedical Engineering	T38	2.5	-	②③④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Common Engineering Programme	T56	2.5	-	③④⑥
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Green Building & Sustainability	T29	2.5	-	③④
Information Technology	T30	2.5	-			

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT31	Electrical Engineering	Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Microelectronics	T14	-	3.5	①③④⑧
		Product & Industrial Design	T35	3.0	-	②③④
IT41	Electronics Engineering/ Industrial Electronics Engineering	3D Interactive Media Technology	T49	2.5	-	②④
		Aerospace Electronics	T50	2.5	-	②③④⑦
		Aerospace Engineering	T51	2.5	-	②③④⑦
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①④
		Biomedical Engineering	T38	2.5	-	②③④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business Process & Systems Engineering	T43	2.5	-	④
		Clean Energy	T52	2.5	-	①③④
		Common Engineering Programme	T56	2.5	-	③④⑥
		Computer Engineering	T13	2.5	3.5	①③④⑧
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
Electronics	T05	-	3.5	①③④⑧		

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT41	Electronics Engineering/ Industrial Electronics Engineering	Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Green Building & Sustainability	T29	2.5	-	③④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Mechatronics	T06	-	3.5	①③④⑧
		Microelectronics	T14	-	3.5	①③④⑧
		Product & Industrial Design	T35	3.0	-	②③④
IT50	Air-Conditioning & Refrigeration Engineering	Clean Energy	T52	2.5	-	①③④
		Green Building & Sustainability	T29	2.5	-	③④
IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	Game Design & Development	T58	2.5	-	①④
		Green Building & Sustainability	T29	2.5	-	③④
		Information Technology	T30	2.5	-	
		Integrated Facility Management	T28	2.5	-	④
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Product & Industrial Design	T35	3.0	-	②③④
IT52	Mechanical Engineering	3D Interactive Media Technology	T49	2.5	-	②④
		Aerospace Engineering	T51	2.5	-	②③④⑦
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Common Engineering Programme	T56	2.5	-	③④⑥
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT52	Mechanical Engineering	Green Building & Sustainability	T29	2.5	-	③④
		Information Technology	T30	2.5	-	
		Integrated Facility Management	T28	2.5	-	④
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Product & Industrial Design	T35	3.0	-	②③④
IT54	Mechanical Engineering Drawing & Design	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Product & Industrial Design	T35	3.0	-	②③④
IT55	Manufacturing Engineering	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT55	Manufacturing Engineering	Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Product & Industrial Design	T35	3.0	-	②③④
IT56	Information Technology	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communication Design	T59	3.0	-	②④
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT57	Wireless Technology	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
IT58	Biotechnology/ Biochemical Technology	Applied Food Science & Nutrition	T26	2.5	-	④
		Baking & Culinary Science	T44	2.5	-	④
		Big Data Management & Governance	T60	2.5	-	①④
		Biomedical Science	T27	3.0	-	②④
		Biotechnology	T31	2.5	-	④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Chemical Engineering	T33	2.5	-	④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT58	Biotechnology/ Biochemical Technology	Information Technology	T30	2.5	-	
		Pharmaceutical Science	T25	2.5	-	④
		Veterinary Technology	T45	3.0	-	①④
IT59	Chemical Technology	Applied Food Science & Nutrition	T26	2.5	-	④
		Baking & Culinary Science	T44	2.5	-	④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Chemical Engineering	T33	2.5	-	④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Pharmaceutical Science	T25	2.5	-	④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT60	Marine & Offshore Technology/ Marine Offshore Engineering	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
IT61	Cyber & Network Security/ Network Security Technology	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
IT62	Paramedic & Emergency Care	Gerontological Management Studies	T53	3.0	-	
		Pharmaceutical Science	T25	2.5	-	④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT63	Games Design & Development	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communication Design	T59	3.0	-	②④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Product & Industrial Design	T35	3.0	-	②③④
IT64	Business Information Systems	Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT65	Leisure & Travel Operations	Culinary & Catering Management	T18	3.0	-	③④
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Leisure & Events Management	T61	3.0	-	
		Retail Management	T39	3.0	-	③④
IT66	Security System Integration	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT67	Civil & Structural Engineering Design	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Green Building & Sustainability	T29	2.5	-	③④
		Information Technology	T30	2.5	-	
		Product & Industrial Design	T35	3.0	-	②③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT68	Facility Systems Design	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Clean Energy	T52	2.5	-	①③④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Green Building & Sustainability	T29	2.5	-	③④
		Information Technology	T30	2.5	-	
		Integrated Facility Management	T28	2.5	-	④
IT69	Information Systems Quality	Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT70	Mobile Unified Communications	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
IT74	Aerospace Engineering	Aerospace Electronics	T50	2.5	-	②③④⑦
		Aerospace Engineering	T51	2.5	-	②③④⑦
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Computer Engineering	T13	2.5	-	①③④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT75	Engineering with Business/ Advanced Manufacturing	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Business Process & Systems Engineering	T43	2.5	-	④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
IT76	e-Business Programming	Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT77	Facility Management	Green Building & Sustainability	T29	2.5	-	③④
		Integrated Facility Management	T28	2.5	-	④
IT78	Shipping Ops & Services	Business Information Technology	T36	2.5	-	①④
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
IT80	Space Design Technology	Environment Design	T46	3.0	-	②④
		Green Building & Sustainability	T29	2.5	-	③④
		Interior Architecture & Design	T22	3.0	-	②④
		Product & Industrial Design	T35	3.0	-	②③④
IT81	Broadcast & Media Technology	Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communications & Media Management	T40	3.0	-	③④⑩
		Communication Design	T59	3.0	-	②④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Digital Film & Television	T23	3.0	-	②④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT82	Games Art & Design	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communication Design	T59	3.0	-	②④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Product & Industrial Design	T35	3.0	-	②③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT83	Games Programming & Development	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communication Design	T59	3.0	-	②④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Product & Industrial Design	T35	3.0	-	②③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT84	Interactive Design	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communication Design	T59	3.0	-	②④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Product & Industrial Design	T35	3.0	-	②③④
IT85	Precision Engineering	Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
IT86	Rapid Transit Engineering	Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
IT87	Landscape Management & Design	Environment Design	T46	3.0	-	②④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT88	IT Applications Development	Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	
		Retail Management	T39	3.0	-	③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN GPA^ FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT89	IT System Networks	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①④
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①④
		Communication Design	T59	3.0	-	②④
		Computer Engineering	T13	2.5	-	①③④
		Cybersecurity & Digital Forensics	T62	2.5	-	①④
		Financial Business Informatics	T17	2.5	-	④
		Game Design & Development	T58	2.5	-	①④
		Information Technology	T30	2.5	-	

Notes:

^ The minimum GPA is inclusive of the ITE CCA bonus points. The awarded bonus points are as follows:

ITE CCA GRADE	BONUS POINTS
A	0.20
B	0.15
C	0.10
E	0.05

All successful applicants are required to go through medical examination. An applicant with a medical condition may be assessed further to verify the severity of the condition and to determine suitability for the course posted to so as to be in line with industry requirements, training requirements and/or safety reasons.

- ① Applicants with severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ② Applicants with mild or severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with mild or severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ③ Applicants with uncontrolled epilepsy or profound hearing loss may have difficulties meeting the course requirements and expectations.  
Interested applicants with these conditions are highly encouraged to contact Temasek Polytechnic for more information.
- ④ Applicants with severe visual impairment may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe visual impairment are highly encouraged to contact Temasek Polytechnic for more information.
- ⑤ Due to the specific requirements of the early childhood professions, all applicants have to go through medical examination and be certified not to have communicable diseases and have the following abilities to perform the job functions in a safe and effective manner:
  - Mental ability (interpersonal ability and behavioural stability) to provide safe care to children, as well as safety to self, and demonstrate self-control and behavioural stability to function and adapt effectively and sensitively in a dynamic role.
  - Physical ability to move around in a preschool environment, walk/stand, bend, reach, lift, climb, push and pull, carry objects and perform complex sequences of hand eye coordination.
  - Auditory ability to hear faint sounds, alarms and normal speaking level sounds.
  - Visual ability to detect changes in physical appearance, colour and contour and read written communication accurately.

⑥ The first semester in T06 (Mechatronics/ Aerospace Engineering) or first year in T05 (Electrical & Electronic Engineering Programme) or T56 (Common Engineering Programme) is common to all students and they will opt for one of the diplomas at the end of Semester 1 or 2. Students must ensure that they satisfy the requirements as stated in the footnotes under the respective courses.

- Electrical & Electronic Engineering Programme (T05):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Electronics	②③④⑦
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Microelectronics	①③④

- Mechatronics/ Aerospace Engineering (T06):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Engineering	②③④⑦
Diploma in Mechatronics	①③④

- Common Engineering Programme (T56):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Electronics	②③④⑦
Diploma in Aerospace Engineering	②③④⑦
Diploma in Biomedical Engineering	②③④
Diploma in Clean Energy	①③④
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Mechatronics	①③④
Diploma in Microelectronics	①③④

- ⑦ Applicants with physical impairment or are physically dependent on mobility equipment may have difficulties meeting the course requirements and expectations. Interested applicants with physical impairment are highly encouraged to contact Temasek Polytechnic for more information.
- ⑧ Applicants with GPA of 3.5 or more and passed the Bridging Maths 1 (BM1) programme or have obtained at least a C6 grade in GCE 'O' Level Mathematics, may be admitted to the 2<sup>nd</sup> year of the course.
- ⑨ The first year in T01 (Business/Logistics & Operations Management/Marketing) is common to all students and they will opt for one of the following diplomas at the end of Year 1:
- Diploma in Business
  - Diploma in Logistics & Operations Management
  - Diploma in Marketing
- ⑩ Applicants applying for T09 (Diploma in Law & Management) or T40 (Diploma in Communications & Media Management) must obtain at least a B4 grade in English Language (EL1) in the GCE 'O' Level/SPM examinations.

## National ITE Certificate (Nitec)

To be eligible for consideration for admission, applicants must have obtained a minimum Grade Point Average (GPA) of 3.5 (inclusive of CCA bonus points) and the relevant National ITE Certificate (Nitec)/ NTC Grade 2 COM qualification applicable to the 3 year full-time diploma as shown in the table below.

Admission is based on academic merit and subject to availability of vacancies.

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT21	Architectural Drafting/ Building Drafting (Architectural)	Communication Design	T59	②④
		Environment Design	T46	②④
		Interior Architecture & Design	T22	②④
		Product & Industrial Design	T35	②③④
NT23	Civil & Structural Drafting/ Building Drafting (Civil & Structural)	Product & Industrial Design	T35	②③④
NT24	Electronics (Broadband Technology & Services)/ Electronics/ Electronics Servicing/ Electronics (Computer & Networking)/ Electronics (Instrumentation)/ Electronics (Mobile Devices)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	Aerospace Electronics	T50	②③④⑦
		Aerospace Engineering	T51	②③④⑦
		Big Data Management & Governance	T60	①④
		Biomedical Engineering	T38	②③④
		Business Intelligence & Analytics	T57	①④
		Business Process & Systems Engineering	T43	④
		Clean Energy	T52	①③④
		Common Engineering Programme	T56	③④⑥
		Computer Engineering	T13	①③④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT24	Electronics (Broadband Technology & Services)/ Electronics/ Electronics Servicing/ Electronics (Computer & Networking)/ Electronics (Instrumentation)/ Electronics (Mobile Devices)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	Cybersecurity & Digital Forensics	T62	①④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Game Design & Development	T58	①④
		Green Building & Sustainability	T29	③④
		Information Technology	T30	
		Mechatronics/ Aerospace Engineering	T06	③④⑥
		NT25	Mechatronics/ Electro-Mechanical Servicing/ Mechatronics (Automation Technology)/ Mechatronics (Equipment Assembly)/ Mechatronics (Medical Technology)	Aerospace Engineering
Big Data Management & Governance	T60			①④
Business Intelligence & Analytics	T57			①④
Business Process & Systems Engineering	T43			④
Clean Energy	T52			①③④
Common Engineering Programme	T56			③④⑥
Computer Engineering	T13			①③④
Cybersecurity & Digital Forensics	T62			①④
Electrical & Electronic Engineering Programme	T05			③④⑥
Game Design & Development	T58			①④
Green Building & Sustainability	T29			③④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT25	Mechatronics/ Electro-Mechanical Servicing/ Mechatronics (Automation Technology)/ Mechatronics (Equipment Assembly)/ Mechatronics (Medical Technology)	Information Technology	T30	
		Mechatronics/ Aerospace Engineering	T06	③④⑥
NT26	Electrical Technology/ Electrical Technology (Installation & Servicing)/ Electrical Fitting & Installation/ Electrical Installation & Servicing	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Clean Energy	T52	①③④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Green Building & Sustainability	T29	③④
		Information Technology	T30	

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT27	Electrical Technology (Power & Control)/ Electrical Power & Machines/ Electrical Technology (Power & Machines)	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Clean Energy	T52	①③④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Green Building & Sustainability	T29	③④
		Information Technology	T30	
NT28	Air-Conditioning & Refrigeration Technology/ Air-Conditioning & Refrigeration/ Air-Conditioning & Refrigeration Mechanics	Clean Energy	T52	①③④
		Green Building & Sustainability	T29	③④
NT29	Automotive Technology (Heavy Vehicles)	Aerospace Engineering	T51	②③④⑦
		Clean Energy	T52	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Mechatronics/ Aerospace Engineering	T06	③④⑥
NT30	Mechanical Technology/ Maintenance Fitting/ Mechanical Servicing	Mechatronics/ Aerospace Engineering	T06	③④⑥
		Product & Industrial Design	T35	②③④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT31	Automotive Technology (Light Vehicles)	Aerospace Engineering	T51	②③④⑦
		Clean Energy	T52	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Mechatronics/ Aerospace Engineering	T06	③④⑥
NT32	Precision Engineering (Machining)/ Precision Machining	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Information Technology	T30	
		Mechatronics/ Aerospace Engineering	T06	③④⑥
NT37	Precision Engineering (Injection Mould)/ Precision Engineering (Press Tool)/ Precision Engineering (Tool & Mould)/ Precision Tooling/ Tool & Die-Making	Mechatronics/ Aerospace Engineering	T06	③④⑥
		Product & Industrial Design	T35	②③④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT38	Facility Technology (Air-Conditioning & Refrigeration)/ Building Servicing/ Building Services Technology/ Building Services Technology (Air-conditioning & Refrigeration)/ Building Services Technology (Mechanical & Electrical Services)	Clean Energy	T52	①③④
		Green Building & Sustainability	T29	③④
		Integrated Facility Management	T28	④
NT39	Chemical Process Technology/ Chemical Process Technology (Biologics)/ Chemical Process Technology (Petrochemicals)/ Chemical Process Technology (Pharmaceuticals)/ Chemical Process Technology (Process Instrumentation)	Chemical Engineering	T33	④
NT40	Info-Communications Technology (Networking & System Administration)/ Info-Communications Technology	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Information Technology	T30	

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT41	Multimedia Technology	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Cybersecurity & Digital Forensics	T62	①④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①④
		Information Technology	T30	
		Product & Industrial Design	T35	②③④
NT43	Mechanical-Electrical Drafting	Product & Industrial Design	T35	②③④
NT44	Digital Media Design/ Digital Media Design (Interactive Media)	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Cybersecurity & Digital Forensics	T62	①④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT44	Digital Media Design/ Digital Media Design (Interactive Media)	Information Technology	T30	
		Product & Industrial Design	T35	②③④
NT46	Product Design	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Cybersecurity & Digital Forensics	T62	①④
		Environment Design	T46	②④
		Game Design & Development	T58	①④
		Information Technology	T30	
		Interior Architecture & Design	T22	②④
		Product & Industrial Design	T35	②③④
NT47	Communications Technology	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Cybersecurity & Digital Forensics	T62	①④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Game Design & Development	T58	①④
		Information Technology	T30	

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT48	Precision Engineering (Aerospace)	Aerospace Engineering	T51	②③④⑦
		Mechatronics/ Aerospace Engineering	T06	③④⑥
		Product & Industrial Design	T35	②③④
NT51	Aircraft Maintenance (Mechanical)	Aerospace Engineering	T51	②③④⑦
		Mechatronics/ Aerospace Engineering	T06	③④⑥
NT52	Digital Animation	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Cybersecurity & Digital Forensics	T62	①④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①④
		Information Technology	T30	
		Product & Industrial Design	T35	②③④
NT53	Aerospace Technology	Aerospace Engineering	T51	②③④⑦
		Mechatronics/ Aerospace Engineering	T06	③④⑥

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT54	Digital Media Design (Digital Video Effects)	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Cybersecurity & Digital Forensics	T62	①④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①④
		Information Technology	T30	
NT56	Digital Audio and Video Production	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Cybersecurity & Digital Forensics	T62	①④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①④
		Information Technology	T30	

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT57	Security Technology	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Information Technology	T30	
NT59	Aerospace Avionics	Aerospace Electronics	T50	②③④⑦
		Computer Engineering	T13	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑥
NT60	Electrical Technology (Lighting & Sound)	Clean Energy	T52	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Integrated Facility Management	T28	④
NT61	Facility Technology (Landscaping Services)	Environment Design	T46	②④
		Green Building & Sustainability	T29	③④
		Integrated Facility Management	T28	④
NT62	Machine Technology	Mechatronics/ Aerospace Engineering	T06	③④⑥
NT63	Facility Technology (Mechanical & Electrical Services)	Clean Energy	T52	①③④
		Green Building & Sustainability	T29	③④
		Integrated Facility Management	T28	④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT64	Medical Manufacturing Technology	Mechatronics/ Aerospace Engineering	T06	③④⑥
NT65	Space Design (Architecture)	Communication Design	T59	②④
		Environment Design	T46	②④
		Green Building & Sustainability	T29	③④
		Interior Architecture & Design	T22	②④
		Product & Industrial Design	T35	②③④
NT66	Space Design (Interior & Exhibition)	Communication Design	T59	②④
		Environment Design	T46	②④
		Interior Architecture & Design	T22	②④
		Product & Industrial Design	T35	②③④
NT67	Aerospace Machining Technology	Mechatronics/ Aerospace Engineering	T06	③④⑥
NT68	Laser & Tooling Technology	Mechatronics/ Aerospace Engineering	T06	③④⑥
NT70	Interactive Media Design	3D Interactive Media Technology	T49	②④
		Communication Design	T59	②④
		Game Design & Development	T58	①④
		Product & Industrial Design	T35	②③④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT71	Visual Communication	3D Interactive Media Technology	T49	②④
		Communication Design	T59	②④
		Game Design & Development	T58	①④
		Product & Industrial Design	T35	②③④
NT72	Visual Effects	3D Interactive Media Technology	T49	②④
		Communication Design	T59	②④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①④
NT73	Facility Technology (Vertical Transportation)	Clean Energy	T52	①③④
		Green Building & Sustainability	T29	③④
		Integrated Facility Management	T28	④
NT74	Info-communications Technology (Mobile Networks & Applications)/ Mobile Systems & Services	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Information Technology	T30	

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT76	Electronics (Microelectronics)/ Semiconductor Technology	Clean Energy	T52	①③④
		Computer Engineering	T13	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Mechatronics/ Aerospace Engineering	T06	③④⑥
NT79	Info-Communications Technology (Cloud Computing)	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Cybersecurity & Digital Forensics	T62	①④
		Game Design & Development	T58	①④
		Information Technology	T30	
NT80	Social Media & Web Development	Big Data Management & Governance	T60	①④
		Business Intelligence & Analytics	T57	①④
		Communication Design	T59	②④
		Game Design & Development	T58	①④
		Information Technology	T30	
NT82	Fashion Apparel Production & Design	Apparel Design & Merchandising	T20	②④
		Product & Industrial Design	T35	②③④

ITE CODE	ITE QUALIFICATION (Nitec/NTC GRADE 2-COM)	COURSES	MOE CODE	REFER TO FOOTNOTE
NT88	Electronics (Display Technology)	Aerospace Electronics	T50	②③④⑦
		Aerospace Engineering	T51	②③④⑦
		Big Data Management & Governance	T60	①④
		Biomedical Engineering	T38	②③④
		Business Intelligence & Analytics	T57	①④
		Business Process & Systems Engineering	T43	④
		Clean Energy	T52	①③④
		Common Engineering Programme	T56	③④⑥
		Computer Engineering	T13	①③④
		Cybersecurity & Digital Forensics	T62	①④
		Electrical & Electronic Engineering Programme	T05	③④⑥
		Game Design & Development	T58	①④
		Green Building & Sustainability	T29	③④
		Information Technology	T30	
Mechatronics/ Aerospace Engineering	T06	③④⑥		

Notes:

The awarded bonus points for the ITE CCA are as follows:

ITE CCA GRADE	BONUS POINTS
A	0.20
B	0.15
C	0.10
E	0.05

All successful applicants are required to go through medical examination. An applicant with a medical condition may be assessed further to verify the severity of the condition and to determine suitability for the course posted to so as to be in line with industry requirements, training requirements and/or safety reasons.

- ① Applicants with severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ② Applicants with mild or severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with mild or severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ③ Applicants with uncontrolled epilepsy or profound hearing loss may have difficulties meeting the course requirements and expectations.  
Interested applicants with these conditions are highly encouraged to contact Temasek Polytechnic for more information.
- ④ Applicants with severe visual impairment may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe visual impairment are highly encouraged to contact Temasek Polytechnic for more information.
- ⑥ The first semester in T06 (Mechatronics/ Aerospace Engineering) or first year in T05 (Electrical & Electronic Engineering Programme) or T56 (Common Engineering Programme) is common to all students and they will opt for one of the diplomas at the end of Semester 1 or 2. Students must ensure that they satisfy the requirements as stated in the footnotes under the respective courses.

- Electrical & Electronic Engineering Programme (T05):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Electronics	②③④⑦
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Microelectronics	①③④

- Mechatronics/ Aerospace Engineering (T06):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Engineering	②③④⑦
Diploma in Mechatronics	①③④

- Common Engineering Programme (T56):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Electronics	②③④⑦
Diploma in Aerospace Engineering	②③④⑦
Diploma in Biomedical Engineering	②③④
Diploma in Clean Energy	①③④
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Mechatronics	①③④
Diploma in Microelectronics	①③④

⑦ Applicants with physical impairment or are physically dependent on mobility equipment may have difficulties meeting the course requirements and expectations. Interested applicants with physical impairment are highly encouraged to contact Temasek Polytechnic for more information.

## Direct-Entry-Scheme to Polytechnic Programme (DPP)

To be eligible for progression into the mapped courses as shown in the table below, final semester graduating students from the DPP must meet the following minimum qualifying Grade Point Average (GPA) scores upon completion of their Higher Nitec course. In addition to the minimum qualifying GPAs, applicants from Higher Nitec DPP courses in Applied Sciences, Engineering and Info-Communications Technology are also required to offer and pass a Math elective at ITE. Normal (Academic) students with at least Grade C6 in GCE 'O' Level Mathematics will be exempted from this requirement. To be guaranteed a place in one of the mapped courses offered by the polytechnics, applicants must submit their applications via the Joint Polytechnic Admissions Exercise (JPAAE). Applicants with good grades in the relevant subjects for their Higher Nitec qualification may be granted subject exemption on a subject by subject basis. Admission is based on academic merit and subject to availability of vacancies.

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN RAW GPA FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS82	Banking Services	Financial Business Informatics	T17	3.0	-	④
BS83	Hospitality Operations	Hospitality & Tourism Management	T08	3.0	-	
		Leisure & Events Management	T61	3.0	-	
BS85	Accounting	Accounting & Finance	T02	3.0	-	
BS87	International Logistics/ Logistics for International Trade	Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
BS90	Service Management	Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Retail Management	T39	3.0	-	③④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN RAW GPA FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
BS98	Event Management	Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑨
		Hospitality & Tourism Management	T08	3.0	-	
		Leisure & Events Management	T61	3.0	-	
		Retail Management	T39	3.0	-	③④
IT22	Mechatronics Engineering	Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Green Building & Sustainability	T29	2.5	-	③④
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
		Mechatronics	T06	-	3.5	①③④⑧
		Microelectronics	T14	-	3.5	①③④⑧
IT31	Electrical Engineering	Biomedical Engineering	T38	2.5	-	②③④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Green Building & Sustainability	T29	2.5	-	③④
		Microelectronics	T14	-	3.5	①③④⑧

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN RAW GPA FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT41	Electronics Engineering	Biomedical Engineering	T38	2.5	-	②③④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	3.5	①③④⑧
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑥
		Electronics	T05	-	3.5	①③④⑧
		Green Building & Sustainability	T29	2.5	-	③④
		Microelectronics	T14	-	3.5	①③④⑧
IT52	Mechanical Engineering	Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Green Building & Sustainability	T29	2.5	-	③④
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑥
IT56	IT Systems & Networks/ Information Technology	Computer Engineering	T13	2.5	-	①③④
		Information Technology	T30	2.5	-	
IT61	Cyber & Network Security	Information Technology	T30	2.5	-	
IT64	Business Information Systems	Business Information Technology	T36	2.5	-	①④

ITE CODE	ITE QUALIFICATION (Higher Nitec/ ITC/ CBS)	COURSES	MOE CODE	MIN RAW GPA FOR ENTRY TO		REFER TO FOOTNOTE
				YEAR 1	YEAR 2	
IT65	Leisure & Travel Operations	Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Leisure & Events Management	T61	3.0	-	
IT67	Civil & Structural Engineering Design	Clean Energy	T52	2.5	-	①③④
		Green Building & Sustainability	T29	2.5	-	③④
IT82	Games Art & Design	3D Interactive Media Technology	T49	2.5	-	②④
		Game Design & Development	T58	2.5	-	①④

Notes:

All successful applicants are required to go through medical examination. An applicant with a medical condition may be assessed further to verify the severity of the condition and to determine suitability for the course posted to so as to be in line with industry requirements, training requirements and/or safety reasons.

- ① Applicants with severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ② Applicants with mild or severe colour vision deficiency may have difficulties meeting the course requirements and expectations.  
Interested applicants with mild or severe colour vision deficiency are highly encouraged to contact Temasek Polytechnic for more information.
- ③ Applicants with uncontrolled epilepsy or profound hearing loss may have difficulties meeting the course requirements and expectations.  
Interested applicants with these conditions are highly encouraged to contact Temasek Polytechnic for more information.
- ④ Applicants with severe visual impairment may have difficulties meeting the course requirements and expectations.  
Interested applicants with severe visual impairment are highly encouraged to contact Temasek Polytechnic for more information.

⑥ The first semester in T06 (Mechatronics/ Aerospace Engineering) or first year in T05 (Electrical & Electronic Engineering Programme) or T56 (Common Engineering Programme) is common to all students and they will opt for one of the diplomas at the end of Semester 1 or 2. Students must ensure that they satisfy the requirements as stated in the footnotes under the respective courses.

- Electrical & Electronic Engineering Programme (T05):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Electronics	②③④⑦
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Microelectronics	①③④

- Mechatronics/ Aerospace Engineering (T06):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Engineering	②③④⑦
Diploma in Mechatronics	①③④

- Common Engineering Programme (T56):

DIPLOMA COURSE	REFER TO FOOTNOTE
Diploma in Aerospace Electronics	②③④⑦
Diploma in Aerospace Engineering	②③④⑦
Diploma in Biomedical Engineering	②③④
Diploma in Clean Energy	①③④
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Mechatronics	①③④
Diploma in Microelectronics	①③④

- ⑦ Applicants with physical impairment or are physically dependent on mobility equipment may have difficulties meeting the course requirements and expectations. Interested applicants with physical impairment are highly encouraged to contact Temasek Polytechnic for more information.
- ⑧ Applicants with GPA of 3.5 or more and passed the Bridging Maths 1 (BM1) programme or have obtained at least a C6 grade in GCE 'O' Level Mathematics, may be admitted to the 2<sup>nd</sup> year of the course.
- ⑨ The first year in T01 (Business/Logistics & Operations Management/Marketing) is common to all students and they will opt for one of the following diplomas at the end of Year 1:
- Diploma in Business
  - Diploma in Logistics & Operations Management
  - Diploma in Marketing

# Minimum Entry Requirements for Holders of Other Qualifications

Please refer to the section on “Information for International Students – Minimum Entry Requirements”.

## Medical Requirements

MEDICAL CONDITIONS	REQUIREMENTS	COURSES
Medical fitness	Applicants offered admission are required to undergo an enrolment medical examination. Applicants must be certified mentally and physically fit by a medical practitioner registered with the Singapore Medical Council to pursue their course of study at the point of enrolment and before course commencement. Those who are unable to complete or fulfil the requirements of the enrolment medical examination will be deemed as unfit to pursue the course of study and may be offered alternative options.	Applies to all courses
Colour vision deficiency (complete/partial)	Applicants applying for these courses must ensure that they do not suffer from any colour vision deficiency. Those who do not satisfy this requirement are not eligible to pursue the course of study and may be offered alternative options.	<ul style="list-style-type: none"> <li>• 3D Interactive Media Technology</li> <li>• Aerospace Electronics*</li> <li>• Aerospace Engineering*</li> <li>• Apparel Design &amp; Merchandising</li> <li>• Biomedical Engineering*</li> <li>• Biomedical Science</li> <li>• Common Engineering Programme*</li> <li>• Communication Design</li> <li>• Digital Film &amp; Television</li> <li>• Electrical &amp; Electronic Engineering Programme*</li> <li>• Environment Design</li> <li>• Interior Architecture &amp; Design</li> <li>• Product &amp; Industrial Design</li> </ul>

MEDICAL CONDITIONS	REQUIREMENTS	COURSES
Colour vision deficiency (complete)	Applicants applying for these courses must ensure that they do not suffer from complete colour vision deficiency. Those who do not satisfy this requirement are not eligible to pursue the course of study and may be offered alternative options.	<ul style="list-style-type: none"> <li>• Big Data Management &amp; Governance</li> <li>• Business Information Technology</li> <li>• Business Intelligence &amp; Analytics</li> <li>• Clean Energy*</li> <li>• Computer Engineering*</li> <li>• Cybersecurity &amp; Digital Forensics</li> <li>• Electronics*</li> <li>• Game Design &amp; Development</li> <li>• Mechatronics*</li> <li>• Microelectronics*</li> <li>• Veterinary Technology</li> </ul>
Severe vision impairment	Applicants applying for these courses must ensure that they do not suffer from severe vision impairment. Those who do not satisfy this requirement are not eligible to pursue the course of study and may be offered alternative options.	<ul style="list-style-type: none"> <li>• 3D Interactive Media Technology</li> <li>• Aerospace Electronics*</li> <li>• Aerospace Engineering*</li> <li>• Apparel Design &amp; Merchandising</li> <li>• Applied Food Science &amp; Nutrition</li> <li>• Aviation Management &amp; Services</li> <li>• Baking &amp; Culinary Science</li> <li>• Big Data Management &amp; Governance</li> <li>• Biomedical Engineering*</li> <li>• Biomedical Science</li> <li>• Biotechnology</li> <li>• Business Information Technology</li> <li>• Business Intelligence &amp; Analytics</li> <li>• Business Process &amp; Systems Engineering</li> <li>• Chemical Engineering</li> <li>• Clean Energy*</li> <li>• Communication Design</li> <li>• Communications &amp; Media Management</li> <li>• Common Engineering Programme*</li> </ul>

MEDICAL CONDITIONS	REQUIREMENTS	COURSES
Severe vision impairment	Applicants applying for these courses must ensure that they do not suffer from severe vision impairment. Those who do not satisfy this requirement are not eligible to pursue the course of study and may be offered alternative options.	<ul style="list-style-type: none"> <li>• Computer Engineering*</li> <li>• Culinary &amp; Catering Management</li> <li>• Cybersecurity &amp; Digital Forensics</li> <li>• Digital Film &amp; Television</li> <li>• Electrical &amp; Electronic Engineering Programme*</li> <li>• Electronics*</li> <li>• Environment Design</li> <li>• Financial Business Informatics</li> <li>• Game Design &amp; Development</li> <li>• Green Building &amp; Sustainability</li> <li>• Integrated Facility Management</li> <li>• Interior Architecture &amp; Design</li> <li>• Mechatronics*</li> <li>• Mechatronics/Aerospace Engineering</li> <li>• Microelectronics*</li> <li>• Pharmaceutical Science</li> <li>• Product &amp; Industrial Design</li> <li>• Retail Management</li> <li>• Veterinary Technology</li> </ul>
Physical Impairment or are physically dependent on mobility equipment	Applicants applying for these courses must ensure that they do not suffer from physical impairment and are not physically dependent on mobility equipment. Those who do not satisfy these requirements are not eligible to pursue the course of study and may be offered alternative options.	<ul style="list-style-type: none"> <li>• Aerospace Electronics*</li> <li>• Aerospace Engineering*</li> </ul>

MEDICAL CONDITIONS	REQUIREMENTS	COURSES
Uncontrolled epilepsy or profound hearing loss	For safety reasons, applicants applying for these courses must ensure that they do not suffer from medical conditions such as uncontrolled epilepsy or profound hearing loss. Those who do not satisfy this requirement are not eligible to pursue into the course of study and may be offered alternative options.	<ul style="list-style-type: none"> <li>• Aerospace Electronics*</li> <li>• Aerospace Engineering*</li> <li>• Aviation Management &amp; Services</li> <li>• Biomedical Engineering*</li> <li>• Clean Energy*</li> <li>• Communications &amp; Media Management</li> <li>• Computer Engineering*</li> <li>• Common Engineering Programme</li> <li>• Culinary &amp; Catering Management</li> <li>• Electrical &amp; Electronic Engineering Programme*</li> <li>• Electronics*</li> <li>• Green Building &amp; Sustainability</li> <li>• Mechatronics/Aerospace Engineering</li> <li>• Mechatronics*</li> <li>• Microelectronics*</li> <li>• Product &amp; Industrial Design</li> <li>• Retail Management</li> </ul>

MEDICAL CONDITIONS	REQUIREMENTS	COURSES
Physical disabilities	<p>Applicants offered a place in Early Childhood Studies must also be free from physical disabilities. Whilst not comprehensive, the following medical conditions may lead to non-acceptance into the course:</p> <ul style="list-style-type: none"> <li>• Active tuberculosis</li> <li>• Acquired immune deficiency syndrome (AIDS)</li> <li>• Legal Blindness</li> <li>• Mobility restricted</li> <li>• Physical dependence upon mobility equipment</li> <li>• Profound deafness</li> <li>• Psychiatric condition</li> <li>• Uncontrolled asthma</li> <li>• Uncontrolled diabetes</li> <li>• Uncontrolled epilepsy</li> <li>• Uncontrolled hypertension</li> </ul>	<ul style="list-style-type: none"> <li>• Early Childhood Studies (Not applicable to Polytechnic Foundation Programme)</li> </ul>

\* Applicants enrolled in Common Engineering Programme, Electrical & Electronic Engineering Programme and Mechatronics/Aerospace Engineering opting for the diploma course in the subsequent semester must ensure that they satisfy the medical requirements for the diploma course.

# Other Information

## CCA Bonus Points

Applicants who are active in their school's co-curriculum activities (CCA) will receive bonus points. The CCA bonus points can be used to improve their ranking for admission consideration.

QUALIFICATION	AGGREGATE TYPE	TYPE OF BONUS POINTS	NO. OF BONUS POINTS AWARDED
Singapore-Cambridge GCE O Level	ELR2B2	Grades of A1 – A2/Excellent Grades of B3 – C6/Good	2 points 1 point
Singapore-Cambridge GCE N Level	ELMAB3	Grades of A1 – A2/Excellent Grades of B3 – C6/Good	2 points 1 point
ITE Certificate	GPA	Grade A Grade B Grade C Grade E	0.20 point 0.15 point 0.10 point 0.05 point

## NS-Deferment for Full-time Polytechnic Diploma Studies

Male Singaporeans and Singapore PRs who are NS-liable are eligible for NS deferment for polytechnic diploma studies if they do not exceed the deferment cut-off age of 19 years old (for Secondary 4 Express Stream students) or 20 years old (for Secondary 5 Normal Stream students) as at 1 January of the course commencement year.

Those graduating from Institute of Technical Education from December 2017 and who are above 21 years old as at 1 January of the course commencement year may also apply for deferment from NS to pursue the diploma studies at the polytechnic. Approval for deferment is given on a case by case basis.

For further details, please visit [www.ns.sg](http://www.ns.sg) or contact the NS Call Centre at Tel: 1800-3676767/email: [contact@ns.sg](mailto:contact@ns.sg).

## Reservation of Place for NSmen

The Polytechnic will reserve a place for successful male applicants who are unable to obtain approval to defer or be disrupted from their Singapore full-time National Service (NS) to join the current intake.

Reservation of a place is only applicable to male Singaporeans and Singapore PRs who are required to serve NS and are admitted to a polytechnic course for the first time.

## Enrolment

Successful applicants can expect to receive an enrolment package. Applicants are to confirm acceptance of the course by the given deadline and submit the required enrolment documents to complete the enrolment.



# Centre for Foundation Studies

The Centre for Foundation Studies oversees the planning and implementation of the Polytechnic Foundation Programme (PFP) and other preparatory programmes at Temasek Polytechnic. Secondary 4 Normal Academic students who have performed very well in the Singapore-Cambridge GCE N(A) Level examinations can opt for a one-year Polytechnic Foundation Programme (PFP) at TP instead of taking their GCE O Level examinations in Secondary 5.



PFP definitely helped me to achieve my goals and provided me with the time to adapt to polytechnic life. The many relevant and important foundational skills and knowledge that I received during my PFP year has also given me a head start over my peers and course mates who came via O-Levels.

## **Eyo Wei Chin**

Lee Kuan Yew Award 2017, BM Singapore Course Gold Medal, IMDA Excellence Award Diploma in Cyber & Digital Security School of Informatics and IT, PFP student (Pioneer Batch 2013)

# Polytechnic Foundation Programme

With the aim to prepare students for a full-time course at TP, the PFP:

- lays a strong foundation through an applied learning and practice-oriented curriculum
- gives students a foretaste of their choice diploma courses
- enables an encouraging and nurturing transition to diploma studies
- provides an enjoyable learning experience that deepens students' interest in their chosen field

Focus will be placed on all aspects of your development including the physical, social, emotional and intellectual, through academic and non-academic programmes and activities.

The PFP curriculum will follow TP's academic calendar, which runs in two semesters. Lessons will be conducted in small classroom sizes. The programme comprises:

- common subjects (to lay a strong foundation in English Language and Mathematics)
- domain cluster subjects (to give a foretaste of chosen diploma course)
- a Personal Effectiveness Programme (visits, talks, enrichment activities)
- a Wellness Programme (to enable students to stay physically fit)

## Group 1 Courses

### School of Applied Science

- Applied Food Science & Nutrition (T26)
- Baking & Culinary Science (T44)
- Biomedical Science (T27)
- Biotechnology (T31)
- Chemical Engineering (T33)
- Pharmaceutical Science (T25)
- Veterinary Technology (T45)

### School of Business

- Business Information Technology (T36)

### School of Design

- Apparel Design & Merchandising (T20)
- Communication Design (T59)
- Digital Film & Television (T23)
- Environment Design (T46)
- Interior Architecture & Design (T22)
- Product & Industrial Design (T35)

### School of Engineering

- 3D Interactive Media Technology (T49)
- Aerospace Electronics (T50)
- Aerospace Engineering (T51)
- Aviation Management & Services (T04)
- Biomedical Engineering (T38)
- Business Process & Systems Engineering (T43)
- Clean Energy (T52)
- Common Engineering Programme (T56)
- Computer Engineering (T13)
- Electrical & Electronic Engineering Programme (T05)
- Green Building & Sustainability (T29)
- Integrated Facility Management (T28)
- Mechatronics/Aerospace Engineering (T06)

### School of Informatics & IT

- Big Data Management & Governance (T60)
- Business Intelligence & Analytics (T57)
- Cybersecurity & Digital Forensics (T62)
- Financial Business Informatics (T17)
- Game Design & Development (T58)
- Information Technology (T30)

## Group 2 Courses

### School of Business

- Accounting & Finance (T02)
- Business/Logistics & Operations Management/ Marketing (T01)
- Communications & Media Management (T40)
- Culinary & Catering Management (T18)
- Hospitality & Tourism Management (T08)
- Law & Management (T09)
- Leisure & Events Management (T61)
- Retail Management (T39)

### School of Humanities & Social Sciences

- Gerontological Management Studies (T53)

\*Courses listed are available at the time of printing, and are subject to change.

# Minimum Entry Requirements

PFP is offered to Secondary 4 N(A) students who have sat for the preceding year's GCE N(A) Level examinations. Those who obtain an ELMAB3 (English Language, Mathematics, Best 3 relevant subjects) aggregate score of 11 points or better (excluding CCA bonus points) and meet the minimum entry requirements as shown below will be eligible to apply to the corresponding PFP for the respective diploma courses.

## Application

Eligible students will be invited to apply for PFP courses through the Polytechnic Foundation Programme Admissions Exercise (PFPAE). For more detailed information, please refer to the section on "Admissions and Requirements".

## Progress to Diploma Course

Students must pass all the subjects in the one-year PFP in order to progress to the first year of their chosen diploma course.

### Group 1 Courses

English Language (Syllabus A)	Grades 1 - 3
Mathematics (Syllabus A / Additional)	Grades 1 - 3
One of the following relevant subjects: Science (Physics, Chemistry), Science (Physics, Biology), Science (Chemistry, Biology), Food & Nutrition, Design & Technology	Grades 1 - 3
Any two other subjects, excluding CCA	Grades 1 - 3

### Group 2 Courses

English Language (Syllabus A)	Grades 1 - 2
Mathematics (Syllabus A / Additional)	Grades 1 - 3
One of the following relevant subjects: Principles of Accounts, Literature in English, History, Combined Humanities, Geography, Art	Grades 1 - 3
Any two other subjects, excluding CCA	Grades 1 - 3

*Specific subject requirements are needed to ensure that students have the necessary subject-specific foundation for the PFP. In addition to the subject-specific requirements, students must also meet medical and other requirements of the chosen diploma courses that they are seeking admission to. Details can be found in the Admissions and Requirements section under "Medical Requirements".*

*Bonus points will be awarded for good CCA grades. These points will be used in computing the ELMAB3 net aggregate score for selection and posting to the PFP.*

# Course Structure

SEMESTER 1 (TOTAL: 26 CU)	COMMON SUBJECTS					
	KCS1F01 LANGUAGE & COMMUNICATION 1 (4 CU) KCS1F03 RESEARCH & REASONING 1 (3 CU) KMA1F01 MATHEMATICS & LOGICAL THINKING 1 (6 CU) KPL1F01 PERSONAL DEVELOPMENT & EFFECTIVENESS 1 (3 CU) KPW1F01 FITNESS & WELLNESS 1 (2 CU)					
SCHOOLS	APPLIED SCIENCE	BUSINESS	DESIGN	ENGINEERING	HUMANITIES & SOCIAL SCIENCES	INFORMATICS & IT
DOMAIN CLUSTER SUBJECTS	ACH1F01 Living Chemistry 1 (4 cu)	BEC1F01 Economics (4 cu)	DUD1F01 Understanding Design (4 cu)	EES1F01 Engineering Science 1 (4 cu)	BEC1F01 Economics (4 cu)	CFP1F01 Introduction to Computer Science (4 cu)
	ABM1F01 Living Biology 1 (4 cu)	BBS1F01 Understanding Business (4 cu)	DCA1F01 Colour Appreciation (4 cu)	EPT1F01 Prototyping (4 cu)	BBS1F01 Understanding Business (4 cu)	CFP1F02 Professional IT skills (4 cu)
SEMESTER 2 (TOTAL: 28 CU)	COMMON SUBJECTS					
	KCS1F02 LANGUAGE & COMMUNICATION 2 (4 CU) KCS1F04 RESEARCH & REASONING 2 (3 CU) KMA1F02 MATHEMATICS & LOGICAL THINKING 2 (6 CU) KPL1F02 PERSONAL DEVELOPMENT & EFFECTIVENESS 2 (3 CU) KPW1F02 FITNESS & WELLNESS 2 (2 CU)					
SCHOOLS	APPLIED SCIENCE	BUSINESS	DESIGN	ENGINEERING	HUMANITIES & SOCIAL SCIENCES	INFORMATICS & IT
DOMAIN CLUSTER SUBJECTS	ACH1F02 Living Chemistry 2 (6 cu)	BMK1F01 Understanding Customers (6 cu)	DVS1F01 Visual Storytelling (6 cu)	EES1F02 Engineering Science 2 (6 cu)	BMK1F01 Understanding Customers (6 cu)	CFP1F03 Logic & Algorithm (6 cu)
	ABM1F02 Living Biology 2 (4 cu)	BAF1F01 Accounting (4 cu)	DUF1F01 Understanding Form (4 cu)	ECP1F01 Computing & Programming (4 cu)	BAF1F01 Accounting (4 cu)	CFP1F04 Social Media & IT Trends (4 cu)

# Subject Synopses

## Common Subjects

### KCS1F01 Language & Communication 1

This subject exposes you to a variety of texts to cultivate an appreciation of a wide range of authentic discourses. You will also develop purposeful communication skills and language use in context. Language skills and features associated with applicable genres are delivered thematically.

### KCS1F02 Language & Communication 2

This subject builds on the knowledge and skills acquired in Language & Communication 1, and spirals to a higher level of proficiency and sophistication. Delivered thematically, Language & Communication 2 introduces you to critical thinking, listening, reading and writing skills.

### KCS1F03 Research & Reasoning 1

This subject introduces you to Information Literacy which covers inquiry, technology and media literacy skills as these critical life skills are needed in today's digital education, research and the work environment. Topics taught include accessing, evaluating and synthesising information obtained through different sources, avoiding plagiarism and applying referencing protocol, and communicating information effectively through media production.

### KCS1F04 Research & Reasoning 2

This subject spirals to a higher level of difficulty and sophistication and provides additional opportunities for you to apply research and reasoning skills in a group research project. The five topics include developing an opinion statement, evaluating information and its sources critically, using information effectively, individually or as member of a group, to accomplish a specific product and demonstrating the use of information ethically and legally.

### KMA1F01 Mathematics & Logical Thinking 1

This subject equips you with fundamental arithmetic and algebraic knowledge and logical thinking skill through problem solving. Topics covered include Number Operations and Approximation; Ratios; Percentages; Algebraic Representation and Manipulation; Solving of Algebraic Equations and Logarithm.

### KMA1F02 Mathematics & Logical Thinking 2

This subject equips you with geometrical, trigonometrical and statistical knowledge for problem solving. Topics covered include Graphs; Mensuration; Trigonometry; Calculus; Set Theory and Statistics & Probability.

### KPL1F01 Personal Development & Effectiveness 1

This subject aims to develop you to become effective learners with good character as you make your transitional journey towards polytechnic education. It provides the theoretical concepts and practical arena for you to examine and build upon your cognitive, psychological, social and moral domains. It enables you to learn values through hands-on activities, enhances your personal development and bridges your knowledge and skills to PDE 2 in the next semester and beyond.

### KPL1F02 Personal Development & Effectiveness 2

This subject aims to develop you to become effective learners with good character as you make your transitional journey towards polytechnic education. It provides the theoretical concepts and practical arena for you to examine and build upon your cognitive, psychological, social and moral domains. It enables you to learn values through hands-on activities, enhances your personal development in the social and community domains and bridges your knowledge and skills to your character education programme in their freshmen year and beyond.

### KPW1F01 Fitness & Wellness 1 and KPW1F02 Fitness & Wellness 2

These subjects promote physical and mental wellbeing by introducing you to the fundamentals of exercise and the various components of physical fitness such as flexibility, strength and endurance. You will gain an understanding of the basic principles of exercise through activities such as spinning bike and Swiss ball workouts. Theoretical knowledge such as weight management and injury prevention will also be covered. In addition, you will also have the opportunity to experience the rigour of a sports module such as dance, self-defence and/or adventure learning programme in a social and recreational setting.

## Domain Cluster Subjects

### School of Applied Science

#### ABM1F01 Living Biology 1

This subject provides you with the knowledge to explain basic concepts in chemistry. You will also learn the basic laboratory skills and methods required for this subject.

#### ABM1F02 Living Biology 2

This subject provides you with the knowledge and skills to explain fundamental concepts of metabolism, anatomy and physiology of the human body.

#### ACH1F01 Living Chemistry 1

This subject provides you with the knowledge to explain basic concepts in chemistry. You will also learn the basic laboratory skills and methods required for this subject.

#### ACH1F02 Living Chemistry 2

This subject provides you with the knowledge and skills to explain basic concepts in cellular organisation, fundamentals of genetics and microbiology.

### Schools of Business and Humanities & Social Sciences

#### BAFF1F01 Accounting

This subject enables you to develop an understanding of the general framework of the basic accounting principles and develop skills in processing accounting information. It covers double-entry bookkeeping, profit determination and contents of financial reports.

#### BBS1F01 Understanding Business

This subject provides you with baseline knowledge and concepts of business and management. You will acquire basic knowledge of the business environment, trends and activities. In addition, you will gain an awareness of the importance of team dynamics for effective performance and the achievement of organisational goals.

#### BEC1F01 Economics

This subject provides practical knowledge and understanding of basic economic reasoning and principles. Conceptual tools of economic analysis such as demand and supply, and behaviour of individuals and firms will be introduced. This is followed by a study of macroeconomic indicators, the government's macroeconomic objectives and policy tools. Singapore's strategies for economic development will also be discussed.

#### BMK1F01 Understanding Customers

This subject provides you with the basic knowledge and skills to explain key concepts in building relationships with customers and understanding their buying behaviour. It will also develop your problem-solving capabilities and basic marketing skills required in these areas.

### School of Design

#### DCA1F01 Colour Appreciation

This subject equips you to appreciate and have fun working with colour, based on the application of colour theory and colour schemes.

#### DUD1F01 Understanding Design

This subject prepares you in understanding of the role of Design, and introduces you to the basic knowledge of Design and its different applications.

#### DUF1F01 Understanding Form

This subject introduces you to appreciate and explore visual and physical attributes of form by observation and application of principles that are fundamental to Design.

#### DVSS1F01 Visual Storytelling

This subject helps you consolidate design learning and also learn to use design as a form of expression. You will primarily use your drawing skills to develop a storyboard sequence to express yourself. You may also choose to develop this storyboard into a video or series of collages.

## School of Engineering

### ECP1F01 Computing & Programming

This subject provides you with a fundamental coverage of the major software and hardware elements in computing and programming. It introduces the elements involved within a computer program and enables you to apply fundamental concepts in analysing, designing, implementing, debugging and testing programs.

### EES1F01 Engineering Science 1

This subject provides you with the knowledge and skills to explain basic concepts of general Physics which include energy, matter, and their Inter-relationships. The topics taught include Speed; Velocity; Acceleration; Forces; Mass; Density; Turning Effects of Forces; Moments; Gravity and Stability.

### EES1F02 Engineering Science 2

This subject provides the core physics knowledge on electricity and magnetism which include wave properties, electricity principles, circuit analysis, electro-magnetism and introductory electronics.

### EPT1F01 Prototyping

This subject imparts the practical skills of building a project, and helps you to understand the process cycle on completing the prototype. It also introduces the use of mechanical hand-tools, electrical and standard electronics laboratory tools and equipment.

## School of Informatics & IT

### CFP1F01 Introduction to Computer Science

This subject introduces you to the world of computing, providing an insight into the history of computing, computing and the internet, computer organisation, networking and security.

### CFP1F02 Professional IT Skills

This subject equips you with skills to use software applications efficiently to analyse data, design web pages, create digital presentations and manage the software development process.

### CFP1F03 Logic & Algorithm

This subject introduces you to computing logic. It teaches the techniques and practical strategies to solve problems through topics like algorithm design and in the process, it builds analytical and problem-solving skills which would form the foundation for future programming subjects.

### CFP1F04 Social Media & IT Trends

This subject introduces you to the ways in which businesses and organisations are embracing social media and digital technologies. Topics covered include the impact of social media and digital technologies, the influence of these media and technologies, and the strategies adopted to leverage better on these media and technologies to enhance business opportunities.



# Information for International Students

The International Students Office (ISO), set up under the International Relations Department, provides our international students with the necessary support to cater to their needs while they are in TP. Our ESP approach aims to meet the Emotional, Social and Practical needs of international students throughout their course of study at TP.

The International Students Office counter is located at:  
Glocal Connect Village  
(located near the West Gate entrance)  
Block 42, Level 1  
Telephone: 6780 5970  
Email: [isohotline@tp.edu.sg](mailto:isohotline@tp.edu.sg)

## Settling into Singapore

Studying overseas can be an exciting yet daunting experience for many international students as most would be leaving home to live in a foreign country for the first time.

The dedicated team at the ISO provides strong support by providing caring and personalised services to ensure that students are able to experience the feeling of “Home away from home”. They ensure that our international students are able to thrive in our caring environment, while enjoying a comprehensive range of state-of-the-art academic facilities and co-curricular activities.

The International Students Office coordinates the recruitment of international students and organises immersion and cultural programmes to facilitate the smooth transition to life in Singapore and at TP. The TP International Students Group (TPISG) is an interest group that provides a platform for social and cross-cultural experiences for international and local students of Temasek Polytechnic. With 19 years of experience, the award-winning interest group organises regular activities to promote cross-cultural awareness and friendship and at the same time, provide international students with opportunities to share their rich cultural heritage with others.

TP is a recipient of the Singapore Tourism Board’s Singapore Education Awards for “Best Host of International Students Studying in Singapore” and the “Friend of International Students”. These accolades testify our commitment to making TP a welcoming place for all international students, thereby contributing to the development of Singapore as a premier education hub.

## Tuition Fee and Tuition Grant Scheme

International students on the three-year full-time subsidised diploma programmes are eligible to apply for the Tuition Grant (TG) with the Ministry of Education. Upon completion of the execution of the Tuition Grant Agreement, the students are eligible for the TG and pay subsidised Tuition Fee. Two sureties, who can be of any nationality but must be above 21 years of age and not declared bankrupt, are required for execution of the Tuition Grant Agreement. You will be contractually obliged to work in Singapore for three years upon graduation. Details on the execution of Tuition Grant Agreement are available in the enrolment package.

Students who choose not to apply for TG or did not complete the execution of the Tuition Grant Agreement will have to pay full fees.

The fees which are payable in two semesters per academic year, consist of the Tuition Fee, TG and Other Fees. The subsidised Tuition Fee and Other Fees for international students who are eligible and opt in for Tuition Grant Subsidy Scheme for current year AY2017/2018 are S\$9,600.00 and S\$160.20 respectively (subject to change).

## Group Hospitalisation and Surgical Insurance (GHSI)

The cost of hospitalisation in Singapore is high for international students. TP has arranged for a GHSI policy to make hospitalisation expenses more affordable for all full-time international students. The insurance premium costs about \$40 per annum (subject to change). The policy covers hospitalisation expenses due to illness and/or accidental injuries except the list of exclusions as stated by insurer. This premium is one of the fee components for Other Fees and is billed together with the Tuition Fee. All fees are payable during your course of study, including the semester when you are on your mandatory Student Internship Programme (SIP).

## Application for Admission and Fees

For information on international students’ admissions or applications, you may visit [www.tp.edu.sg](http://www.tp.edu.sg) or write to us at [isohotline@tp.edu.sg](mailto:isohotline@tp.edu.sg).

# Minimum Entry Requirement

The minimum requirement for admission into a three-year full-time diploma programme is a College or High School Certificate, equivalent to at least the Singapore-GCE O level certificate. The list of acceptable international qualifications is as follows:

ENTRY QUALIFICATION	MINIMUM SCORES														
AUSTRALIA															
<table border="0"> <tr> <td>New South Wales</td> <td>Higher School Certificate</td> </tr> <tr> <td>Northern Territory</td> <td>South Australian Certificate of Education - Northern Territory - Year 12</td> </tr> <tr> <td>Queensland</td> <td>Queensland Certificate of Education - Year 12</td> </tr> <tr> <td>South Australia</td> <td>South Australian Certificate of Education Record of Achievement</td> </tr> <tr> <td>Tasmania</td> <td>Tasmanian Certificate of Education - Higher School Certificate, Year 12</td> </tr> <tr> <td>Victoria</td> <td>Victoria Certificate of Education - Year 12</td> </tr> <tr> <td>Western Australia</td> <td>Western Australian Certificate of Education</td> </tr> </table>	New South Wales	Higher School Certificate	Northern Territory	South Australian Certificate of Education - Northern Territory - Year 12	Queensland	Queensland Certificate of Education - Year 12	South Australia	South Australian Certificate of Education Record of Achievement	Tasmania	Tasmanian Certificate of Education - Higher School Certificate, Year 12	Victoria	Victoria Certificate of Education - Year 12	Western Australia	Western Australian Certificate of Education	English $\geq$ 70% Maths $\geq$ 70% Relevant subject (^) $\geq$ 70% 2 other subjects $\geq$ 70%
New South Wales	Higher School Certificate														
Northern Territory	South Australian Certificate of Education - Northern Territory - Year 12														
Queensland	Queensland Certificate of Education - Year 12														
South Australia	South Australian Certificate of Education Record of Achievement														
Tasmania	Tasmanian Certificate of Education - Higher School Certificate, Year 12														
Victoria	Victoria Certificate of Education - Year 12														
Western Australia	Western Australian Certificate of Education														
BANGLADESH															
Higher Secondary Certificate (HSC)/ Intermediate Certificate  <b>Grading Scheme:</b> <ul style="list-style-type: none"> <li>• 1st division pass (60 - 100%)</li> <li>• 2nd division pass (45 - 59%)</li> <li>• 3rd division pass (33 - 44%)</li> <li>• Fail (0 - 32%)</li> </ul>	1st division pass <ul style="list-style-type: none"> <li>• Maths <math>\geq</math> 70%</li> <li>• Relevant subject (^) <math>\geq</math> 70%</li> <li>• 2 other subjects <math>\geq</math> 70%</li> </ul> <u>One of the following English proficiency:</u> <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade C or better</li> </ul>														

ENTRY QUALIFICATION		MINIMUM SCORES																
CANADA																		
Alberta British Columbia Manitoba New Brunswick Newfoundland NW Territories Nova Scotia Ontario Prince Edward Island Quebec  Saskatchewan Yukon Territory	General High School Diploma Senior Secondary Graduation Diploma High School Graduation Diploma High School Graduation Diploma High School Graduation Diploma General High School Diploma High School Completion Certificate Ontario Secondary School Diploma High School Graduation Diploma High School Diploma/Diplome d'Etudes Secondaires (DES)/ Secondary Grade V Certificate  Secondary Graduation Diploma Senior Secondary Graduation Diploma	English $\geq$ 70% Maths $\geq$ 70% Relevant subject (^) $\geq$ 70% 2 other subjects $\geq$ 70%																
CHINA																		
National College Entrance Examination (NCEE), also known as 'Gao Kao'		Short-listed candidates will be invited to sit for an entrance test cum interview in Temasek Polytechnic.  Maths $\geq$ 65% Relevant subject Combination (^) $\geq$ 65% NCEE score $\geq$ 66% (e.g. 500/750 or 410/630 or better)																
		<table border="1"> <thead> <tr> <th>NCEE Subjects</th> <th>Standard</th> <th>Jiangsu</th> <th>Shanghai</th> </tr> </thead> <tbody> <tr> <td>Maths (65%)</td> <td>98/150</td> <td>104/160</td> <td>98/150</td> </tr> <tr> <td>Arts/Science (65%)</td> <td>195/300</td> <td>B+</td> <td>98/150</td> </tr> <tr> <td><b>Total (66%)</b></td> <td><b>500/750</b></td> <td><b>286/440</b></td> <td><b>410/630</b></td> </tr> </tbody> </table>	NCEE Subjects	Standard	Jiangsu	Shanghai	Maths (65%)	98/150	104/160	98/150	Arts/Science (65%)	195/300	B+	98/150	<b>Total (66%)</b>	<b>500/750</b>	<b>286/440</b>	<b>410/630</b>
NCEE Subjects	Standard	Jiangsu	Shanghai															
Maths (65%)	98/150	104/160	98/150															
Arts/Science (65%)	195/300	B+	98/150															
<b>Total (66%)</b>	<b>500/750</b>	<b>286/440</b>	<b>410/630</b>															
		Note : Application is opened only to students holding current year's NCEE results.																

ENTRY QUALIFICATION

MINIMUM SCORES

HONG KONG

Hong Kong Diploma of Secondary Education Examination (HKDSE)

- Category A Core Subjects
  - o English Language Level 3 and above
  - o Maths (Compulsory & Extended) Level 3 and above
- Category A Elective Subjects
  - o Relevant subject (^) Level 3 and above
  - o 2 other subjects Level 3 and above

Level	Remarks
5 **	Distinction
5 *	Between Grade A / A * in GCE A Levels examination
5	Comparable to Grade A in GCE A Levels examination
4	Comparable to Grade C in GCE A Levels examination
3	Comparable to Grade E in GCE A Levels examination

ENTRY QUALIFICATION	MINIMUM SCORES
INDIA	
<p>1. Secondary School Certificate (Year 10)</p> <ul style="list-style-type: none"> <li>Completed Year 10 with Indian Certificate of Secondary Education (ICSE) or Central Board of Secondary Education (CBSE)</li> <li>Completed Year 10 from other State Boards</li> </ul> <p>2. Senior School Certificate (Year 12)/Higher School Certificate (HSC)</p> <ul style="list-style-type: none"> <li>Completed Year 12 (all State Boards)</li> </ul>	<p><b>Standard 10</b>  English ≥ 80% or A2 and above  Maths ≥ 80% or A2 and above  Relevant subject (^) ≥ 80% or A2 and above  2 other subjects ≥ 80% or A2 and above</p> <p>OR</p> <p><b>Standard 12</b>  English ≥ 70%  Maths ≥ 75%  Relevant subject (^) ≥ 75%  2 other subjects ≥ 70%</p>
INDONESIA	
National Final Examinations (SMA Ebtanas, SMU Ebtanas, or UAN)	<p>Maths ≥ 7  Relevant subject (^) ≥ 7  2 other subjects ≥ 7</p> <p><u>One of the following English proficiency:</u></p> <ul style="list-style-type: none"> <li>IELTS *</li> <li>TOEFL *</li> <li>GCSE - Grade 6 (C) or better</li> </ul>

ENTRY QUALIFICATION	MINIMUM SCORES
KOREA	
College Scholastic Ability Test (CSAT)	<p>Maths <math>\geq</math> 90th percentile  Relevant subject (^) <math>\geq</math> 90th percentile  2 other subjects <math>\geq</math> 90th percentile</p> <p><u>One of the following English proficiency:</u></p> <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade C or better</li> </ul>
MALAYSIA	
<ol style="list-style-type: none"> <li>1. Sijil Pelajaran Malaysia (SPM)</li> <li>2. Unified Examination Certificate (UEC)</li> </ol>	<ul style="list-style-type: none"> <li>• The minimum entry requirements are the same as that of holders of Singapore-Cambridge GCE O Level Examinations results except for English Language.</li> <li>• The minimum requirement for English Language is Grade 6 where the minimum grade for GCE O Level is 7.</li> </ul> <p>For SPM results, pure Science subject (Biology, Chemistry or Physics) is preferred for the relevant subject.</p> <p>English A1 to B6  Maths A1 to B6  Relevant subject A1 to B6  2 other subjects A1 to B6</p>
MYANMAR	
Basic Education High School Examination Certificate (B.E.H.S)/ Matriculation - (Standard 10)	<p>Short-listed candidates will be invited to sit for an entrance test cum interview in Temasek Polytechnic.</p> <p>Maths <math>\geq</math> 70%  Relevant subject (^) <math>\geq</math> 70%  2 other subjects <math>\geq</math> 70%</p>

ENTRY QUALIFICATION	MINIMUM SCORES
NEPAL	
Proficiency Certificate (previously known as the Intermediate Examination) <b>Grading Scheme</b> Division I – 60% and above Division II – 45 –59% Division III – 32 –45%	Division 1: <ul style="list-style-type: none"> <li>• Overall score <math>\geq 70\%</math></li> <li>• Maths <math>\geq 70\%</math></li> <li>• Relevant subject (^) <math>\geq 70\%</math></li> <li>• 2 other subjects <math>\geq 70\%</math></li> </ul> <u>One of the following English proficiency:</u> <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade C or better</li> </ul>
PAKISTAN	
Intermediate/ Higher Secondary School Certificate (HSC) <b>Grading Scheme</b> A1 : 80 - 100% : (Outstanding) A : 70 - 79% : (Excellent) B : 60 - 69% : (Very Good) C : 50 - 59% : (Good) D : 40 - 49% : (Satisfactory) E : 33 - 39% : (Pass) F : 32 and below : (Fail)	Maths $\geq 70\%$ Relevant subject (^) $\geq 70\%$ 2 other subjects $\geq 70\%$  <u>One of the following English proficiency:</u> <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade C or better</li> </ul>
PHILIPPINES	
High School Diploma/ Certificate with High School final year results	English $\geq 85\%$ Maths $\geq 85\%$ Relevant subject (^) $\geq 85\%$ 2 other subjects $\geq 85\%$

ENTRY QUALIFICATION	MINIMUM SCORES
SRI LANKA	
<p>Sri Lanka General Certificate of Education (Ordinary Level)</p> <p><b>Grading Scheme (%)</b></p> <ul style="list-style-type: none"> <li>• 75 - 100 Distinction (A)</li> <li>• 65 - 74 Very Good Pass (B)</li> <li>• 50 - 64 Credit Pass (C)</li> <li>• 35 - 49 Ordinary Pass (S)</li> <li>• 00 - 34 Weak (Fail) (W)</li> </ul>	<p>English: Grade A (Distinction)            Maths: Grade A (Distinction)            Relevant subject (^): Grade A (Distinction)            2 other subjects: Grade B (Very Good Pass)</p>
THAILAND	
<p>Mathayom 6 (M6)            MAW 6 – Grade 12</p>	<p>Maths <math>\geq</math> 3.0 (70%)            Relevant subject (^) <math>\geq</math> 3.0 (70%)            2 other subjects <math>\geq</math> 3.0 (70%)</p> <p><u>One of the following English proficiency:</u></p> <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade C or better</li> </ul>
USA	
<p>High School Graduation Diploma</p> <p>Year 12</p>	<p>English <math>\geq</math> 70%            Maths <math>\geq</math> 70%            Relevant subject (^) <math>\geq</math> 70%            2 other subjects <math>\geq</math> 70%</p>

ENTRY QUALIFICATION	MINIMUM SCORES
VIETNAM	
National High School Exam (Year 12) - taken from year 2015 onwards	<p>Maths <math>\geq 7</math> (70%)  Relevant subject (^) <math>\geq 7</math> (70%)  2 other subjects excluding English Language <math>\geq 7</math> (70%)</p> <p><u>One of the following English proficiency:</u></p> <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade 6 (C) or better</li> </ul>
OTHERS	
<ul style="list-style-type: none"> <li>• General Certificate of Secondary Education (GCSE)/ GCE (non Singapore-Cambridge)</li> <li>• International General Certificate of Secondary Education (IGCSE) - inclusive of IGCSE from Singapore mainstream schools</li> </ul>	<p>The minimum entry requirements are the same as that of holders of Singapore-Cambridge GCE O Level Examination results.</p> <p>Grade C is required for relevant English Language subject where the minimum English Language grade for GCE O Level is 7.</p> <p>English Language as First Language <math>\leq C</math>  Maths <math>\leq C</math>  Relevant subject (^) <math>\leq C</math>  2 other subjects <math>\leq C</math></p>

ENTRY QUALIFICATION	MINIMUM SCORES
International Baccalaureate (IB) Diploma  <b>Grading Scale:</b> <ul style="list-style-type: none"> <li>• Highest Grade (7)</li> <li>• Lowest Grade (1)</li> </ul>	English Grade 5 out of 7 Maths Grade 5 out of 7 Relevant subject (^) Grade 5 out of 7 2 other subjects Grade 5 out of 7
Other international qualifications not listed above	Applicants must have completed Senior High School Education – Year 12 and achieved good pass in English, Maths, Relevant subject and any 2 other subjects.  If the medium of instruction in your senior high school is not English, you are required to produce one of the following English proficiency: <ul style="list-style-type: none"> <li>• IELTS *</li> <li>• TOEFL *</li> <li>• GCSE - Grade C or better</li> </ul>

## Legend

No.	Course Group	^Relevant Subject
1	Arts & Humanities/Business-Related courses	Any Humanities subjects
2	Design courses	Any Science or Art subjects
3	Science & Technology courses	Any Science subjects

## English requirement for the following courses:

Minimum EL grade required for Singapore-Cambridge GCE O Level	Required minimum IELTS scores	Required minimum TOEFL scores	
		Internet-Based	Computer-based
Grade B4	IELTS 6.0	60	170
Grade C6	IELTS 5.5	46	133

### Note:

#### 1. English Requirement

- The IGCSE/GCE 'O' Level English requirement is for holders of the IGCSE or any international GCE 'O' Level result (except Sri Lanka GCE 'O' Level).
- The IELTS/TOEFL English requirement is for holders of any international qualifications except all GCE 'O' level, Australia, Canada, China, Hong Kong, India, Malaysia, Myanmar, Philippines, USA and International Baccalaureate results.

#### 2. Results should be submitted with information of the subject maximum score and grading scheme/scale.

#### 3. Applicants with foreign qualifications applying for the Diploma in Early Childhood Studies course are required:

3.1 To meet the prevailing entry requirements stipulated by the Early Childhood Training Accreditation Committee (ECTAC) with evidence of the following:

##### 3.1.1 Formal education in English

Completed 10 years of formal education in English Language and passed state exam in 5 different subjects including a C6 grade in GCE 'O' Level English as a First Language (EL1) or any of the acceptable alternatives\*

##### 3.1.2 Formal education not in English

Obtained a degree with English as the medium of instruction from a state-recognised university\*\*.

Note:

\* Refer to Table A - English Language Acceptable Alternatives for Course Admission and Teacher Certification

\*\* This also applies to applicants with state-recognised PhD/Master degree with English as the medium of instruction

In order to be granted teacher certification status to teach up to Kindergarten levels by Early Children Development Agency (ECDA), new teachers must have a minimum of a B4 grade for English Language 1. Mother Tongue (MT) teachers must have at least a B4 grade in MT. Those with a C5 or C6 in EL1/MT are given 2 years from the point of teacher registration to obtain either a B4 or any acceptable alternatives\* for English Language teachers, and a minimum level 6 in Hanyu Shuiping Kaoshi (HSK) for Chinese Language teachers.

3.2 Due to the specific requirements of the early childhood professions, all applicants have to go through medical examination and be certified not to have communicable diseases and have the following abilities to perform the job functions in a safe and effective manner:

- Mental ability (interpersonal ability and behavioral stability) to provide safe care to children, as well as safety to self, and demonstrate self-control and behavioral stability to function and adapt effectively and sensitively in a dynamic role
- Physical ability to move around in a preschool environment, walk/stand, bend, reach, lift, climb, push and pull, carry objects and perform complex sequences of hand-eye coordination
- Auditory ability to hear faint sounds, alarms and normal speaking level sounds
- Visual ability to detect changes in physical appearance, colour and contour and read written communication accurately

**\*Table A: English Language Acceptable Alternatives for Course Admission and Teacher Certification**

Assessment	Acceptable alternatives for GCE O Level C6 for English Language	Acceptable alternatives for GCE O Level B4 for English Language
GCE 'AO' General Paper	C6	C5
GCE 'H1' General Paper	D	C
GCSE English	C	B
iGCSE English as First Language (code:0500)	C	B
International Baccalaureate Diploma Extended Essay in English	Satisfactory Score (Grade 4)	Good Score (Grade 5)
Accredited Degree where the medium of instruction is English	Successful completion of the degree programme	NA
IELTS (General)	Band 5.5 (for CECCE, ACEY and HCIC course admission only)	Band 6.5 and any other C6 acceptable alternatives except IELTS (General) and WPL which are not academic based assessments.
IELTS (Academic)	Band 5.5	Band 6.5
Work Place Literacy	At least WPL SOA6 for all literacy components (Reading, Listening, Speaking, Writing) – for WSQ ACECCE course admission only	NA (WPL SOA results cannot be used on its own or combined with other language qualification as a proxy for B4)
TOEFL paper	At least 497	At least 580
TOEFL computer-based test	At least 170	At least 237
TOEFL internet-based test	At least 59	At least 93
English proficiency Test administered by Singapore Examination and Assessment Board (SEAB) to establish language proficiency (GCE O Level credit of B3) to be an MOE teacher	NA	Pass (The pre-requisite for EPT is a C6 in GCE O Level EL1)

Assessment	Acceptable alternatives for GCE O Level C6 for English Language	Acceptable alternatives for GCE O Level B4 for English Language
SPM English Language 1119 (Cambridge GCE O Level EL1)	C6	B4
<b>Grade in EL1 obtained in a national or state examination after 10 years of formal education with English as the medium of instruction</b>	Credit in EL1 equivalent to a C6 in GCE O Level examination (proof of equivalence to C6 in GCE O Level examination is to be provided by the candidate)	Credit in EL1 equivalent to a B4 in GCE O Level examination (proof of equivalence to B4 in GCE O Level examination is to be provided by the candidate)

4. All successful applicants are required to pass a medical examination. An applicant with a medical condition may be assessed further to verify the severity of the condition and to determine suitability for the course posted to so as to be in line with industry requirements, training requirements and/or safety reasons. Applicants are to refer to <http://www.tp.edu.sg/staticfiles/TP/files/admissions/medicalconditions.pdf> for the list of medial requirements.

# Other Information

## Tuition Fee Loan

Full-time subsidised international students who have opted for Tuition Grant and completed the execution of Tuition Grant Agreement with the Ministry of Education are eligible to apply for financial schemes. The Tuition Fee Loan is one of the financial schemes available. Details on the application of Tuition Fee Loan are available in the enrolment package.

## Immigration Matters (Student's Pass / Visa)

All international students are required to have a valid Student's Pass and Visa (if applicable) for your course of study in TP. You will receive the information on how to apply for your Student's Pass online in your enrolment package if you have been offered a place of study at TP. Once your online application is approved by the Immigration & Checkpoints Authority of Singapore (ICA), we will send you an In-Principle Approval (IPA) letter. The IPA letter will serve as a temporary Visa for you to enter Singapore.

## Accommodation

Accommodation has often been the key factor to consider for international students studying abroad. Most international students choose to stay near the campus to minimise the travelling time to and from the campus and home. You can rent a room from a local family. You may also be expected to pay in advance for rental and a security deposit. Where possible, you should make prior arrangement for your accommodation before you arrive in Singapore.

## Finances

Your family should have sufficient finances to support your three-year course of study and stay in Singapore. You are advised to make sure that you have sufficient funds to maintain a minimum standard of living. New students are discouraged from working part-time during your first semester to allow you to settle in a new environment and to focus on your studies. Part-time work must be done outside of school hours, and it must not affect your academic performance.

The following are the estimated expenses for your planning purposes.

ITEM	MONTHLY (S\$)	ANNUALLY (S\$)
Accommodation (1 person per room)	\$600 - \$700	\$7,200 - \$8,400
Books & Stationery (varies from courses)	-	\$250 - \$500
Class Fund	-	\$50 - \$200
Food	\$300 - \$400	\$3,600 - \$4,800
Group Hospitalisation & Surgical Insurance	-	\$40
Personal Expenses (cost varies)	\$30 - \$100	\$360 - \$1,200
Public Transport (concession rates available)	\$50 - \$100	\$600 - \$1,200
Total (approximate)	\$980 - \$1,300	\$12,100 - \$16,300

Your living expenses are estimated to be between S\$980 to S\$1,300 per month or between S\$12,100 to S\$16,300 per year. These costs may vary with individual lifestyles. It is important that you are able to support yourself financially during your course of study at TP.



# Financing Your Studies

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# Course Fee Information for Full-Time Diploma Students

The total course fees for full-time subsidised diploma courses are made up of Tuition Fee and Other Fees.

## Tuition Fee

Tuition Fees\* (after the government subsidy) for Academic Year 2018/2019 of all full-time diploma courses and payable in two semesters per academic year, are as follows:

- \$2,800 for Singapore citizens aged below 40 in the year 2018
- \$1,876 for Singapore citizens aged 40 and above in the year 2018
- \$5,600 for Singapore Permanent Residents
- \$10,000 for international students

\* Fees are in Singapore dollars.

## Other Fees

Besides Tuition Fee, Other Fees are payable once every academic year by all full-time students. All full-time non-Singaporean students (including Singapore Permanent Residents) are required to pay for Examination Fee. All full-time international students are also required to pay for Group Hospitalisation and Surgical Insurance which will assist them in paying part of the cost of medical care in Singapore hospitals should they need it.

## Tuition Grant Scheme

The MOE Tuition Grant (TG) Scheme is open to students enrolled in full-time Diploma programmes in the polytechnics to help defray the cost of their tertiary education.

- For Singapore Citizens: You will be **automatically** awarded a Tier A TG, which is the highest level of subsidy, upon successful enrolment into the polytechnics. This is provided that you have not benefited from TG previously to complete a course at the same or higher level of education.
- For Permanent Residents: You may apply for a Tier B TG if you have not benefited from TG previously to complete a course at the same or higher level of education. **If you take up the TG, you will be required to secure employment and serve in a Singapore entity for three years upon graduation.** Application for TG will be made available upon successful enrolment into the polytechnics.
- For International Students: You may apply for a Tier C TG if you have not benefited from TG previously to complete a course at the same or higher level of education. **If you take up the TG, you will be required to secure employment and serve in a Singapore entity for three years upon graduation.** Application for TG will be made available upon successful enrolment into the polytechnics.

Should you choose not to apply for TG or are not successfully awarded TG, you will need to pay full Tuition Fees.

More information on TG terms and conditions can be found at <https://tgonline.moe.gov.sg>.

## Reserved Places for National Servicemen

Male students may be offered admission before enlistment to National Service. For such cases, these students shall pay Tuition Fee rates applicable to the academic year in which the admission was offered.

## Student Group Personal Accident (GPA) Insurance

All full-time students are covered by the Student Group Personal Accident (GPA) Insurance Policy. This scheme covers students against bodily injury arising out of accidents resulting in Death, Permanent Total Disablement and Medical Expenses incurred. The annual insurance premium is part of the total fees payable at the start of each academic year.

## Summary of Fees for Full-Time Diploma Students

For Singapore Citizens who are aged below 40 in the year 2018 and eligible for Tuition Grant

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Subsidised Tuition Fees Payable</b>	<b>2,800.00</b>	<b>1,400.00</b>	<b>1,400.00</b>
<b>Other Fees</b>			
GPA Insurance fee	3.90	3.90	-
Sports fee	25.00	25.00	-
Miscellaneous fee	34.70	34.70	-
Orientation fee	10.50	10.50	-
Students' Union fee	20.00	20.00	-
<b>Total Subsidised Fee Payable by student</b>	<b>2,894.10</b>	<b>1,494.10</b>	<b>1,400.00</b>

GST on Tuition Fees Payable is subsidised by MOE.

**All Other Fees except Students' Union fee are inclusive of GST.**

## Summary of Fees for Full-Time Diploma Students

For Singapore Citizens who are aged 40 and above in the year 2018 and eligible for Tuition Grant

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Subsidised Tuition Fees Payable</b>	<b>1,866.00</b>	<b>933.00</b>	<b>933.00</b>
<b>Other Fees</b>			
GPA Insurance fee	3.90	3.90	-
Sports fee	25.00	25.00	-
Miscellaneous fee	34.70	34.70	-
Orientation fee	10.50	10.50	-
Students' Union fee	20.00	20.00	-
<b>Total Subsidised Fee Payable by student</b>	<b>1,960.10</b>	<b>1,027.10</b>	<b>933.00</b>

GST on Tuition Fees Payable is subsidised by MOE.

*+ From course semesters starting from 1st July 2015, Singaporeans who are aged 40 and above in the year of course commencement and eligible for Tuition Grant will be eligible for the SkillsFuture Mid-Career Enhanced subsidy.*

**All Other Fees except Students' Union fee are inclusive of GST.**

## Summary of Fees for Full-Time Diploma Students

For Singapore Permanent Residents who are eligible and opt for Tuition Grant

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Subsidised Tuition Fees Payable</b>	<b>5,600.00</b>	<b>2,800.00</b>	<b>2,800.00</b>
<b>Other Fees</b>			
Examination fee	32.10	32.10	-
GPA Insurance fee	3.90	3.90	-
Sports fee	25.00	25.00	-
Miscellaneous fee	34.70	34.70	-
Orientation fee	10.50	10.50	-
Students' Union fee	20.00	20.00	-
<b>Total Fee Chargeable</b>	<b>5,726.20</b>	<b>2,926.20</b>	<b>2,800.00</b>
GST subsidy on Examination Fee	(2.10)	(2.10)	-
<b>Total Subsidised Fee Payable by student</b>	<b>5,724.10</b>	<b>2,924.10</b>	<b>2,800.00</b>

GST on Tuition Fees Payable is subsidised by MOE.

**All Other Fees except Students' Union fee are inclusive of GST.**

## Summary of Fees for Full-Time Diploma Students

For international students who are eligible and opt for Tuition Grant

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Subsidised Tuition Fees Payable</b>	<b>10,000.00</b>	<b>5,000.00</b>	<b>5,000.00</b>
<b>Other Fees</b>			
Examination fee	32.10	32.10	-
GPA Insurance fee	3.90	3.90	-
Sports fee	25.00	25.00	-
Miscellaneous fee	34.70	34.70	-
Orientation fee	10.50	10.50	-
GHS Insurance fee	34.00	34.00	-
Students' Union fee	20.00	20.00	-
<b>Total Subsidised Fee Payable by student</b>	<b>10,160.20</b>	<b>5,160.20</b>	<b>5,000.00</b>

All fees except Students' Union fee are inclusive of GST.

# Course Fee Information for Polytechnic Foundation Programme (PFP) Students

The total course fees payable by PFP students are made up of Tuition Fee and Other Fees.

## Tuition Fee

Tuition Fee\* (after Government subsidy) for Academic Year 2018/2019 for PFP courses and payable in two semesters per academic year are as follows:

- \$340 for Singapore Citizens
- \$2,250 for Singapore Permanent Residents
- \$9,600 for International Students

*\* Fees are in Singapore dollars.*

## Other Fees

Besides Tuition Fee, Other Fees are payable once every academic year by all PFP students. All full-time non-Singaporean students (including Singapore Permanent Residents) are required to pay for Examination Fee. All PFP international students are also required to pay for Group Hospitalisation and Surgical Insurance which will assist them in paying part of the cost of medical care in Singapore hospitals should they need it.

# Summary of Fees for Polytechnic Foundation Programme Students

For Singapore Citizens

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Subsidised Tuition Fees Payable</b>	<b>340.00</b>	<b>170.00</b>	<b>170.00</b>
<b>Other Fees</b>			
GPA Insurance Fee	3.90	3.90	-
Sports Fee	25.00	25.00	-
Miscellaneous Fee	26.50	26.50	-
Orientation Fee	10.50	10.50	-
Students' Union Fee	20.00	20.00	-
<b>Total Subsidised Fee Payable by student</b>	<b>425.90</b>	<b>255.90</b>	<b>170.00</b>

GST on Tuition Fees Payable is subsidised by MOE.

**All Other Fees except Students' Union fee are inclusive of GST.**

# Summary of Fees for Polytechnic Foundation Programme Students

For Singapore Permanent Residents

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Subsidised Tuition Fees Payable</b>	<b>2,250.00</b>	<b>1,125.00</b>	<b>1,125.00</b>
<b>Other Fees</b>			
Examination Fee	32.10	32.10	-
GPA Insurance Fee	3.90	3.90	-
Sports Fee	25.00	25.00	-
Miscellaneous Fee	26.50	26.50	-
Orientation Fee	10.50	10.50	-
Students' Union Fee	20.00	20.00	-
<b>Total Subsidised Fee Payable by student</b>	<b>2,368.00</b>	<b>1,243.00</b>	<b>1,125.00</b>

GST on Tuition Fees Payable is subsidised by MOE.

**All Other Fees except Students' Union fee are inclusive of GST.**

# Summary of Fees for Polytechnic Foundation Programme Students

For International Students

FEE ITEM	AY 2018/2019 (S\$)	SEMESTER 1 (S\$)	SEMESTER 2 (S\$)
<b>Tuition Fees Payable</b>	9,600.00	4,800.00	4,800.00
<b>Other Fees</b>			
Examination Fee	32.10	32.10	-
GPA Insurance Fee	3.90	3.90	-
Sports Fee	25.00	25.00	-
Miscellaneous Fee	26.50	26.50	-
Orientation Fee	10.50	10.50	-
GHS Insurance Fee (IS)	34.00	34.00	-
Students' Union Fee	20.00	20.00	-
<b>Total Fee Payable by student</b>	<b>9,752.00</b>	<b>4,952.00</b>	<b>4,800.00</b>

All fees except Students' Union fee are inclusive of GST.

# Payment of Fees

## Through Inter-Bank Giro (IBG)

IBG is an easy and convenient way for students to pay fees to, or receive payment from, the Polytechnic. IBG collection or payment transactions can be done between the student's or parent's/ guardian's savings or current accounts with any of the IBG participating banks, and the Polytechnic.

New students will receive an IBG application form in their enrolment package. This form is to authorise the Polytechnic to deduct fees payable directly from an authorised bank account. It also serves as the student's standing instruction to the Polytechnic to pay all monies due (if applicable) to the same bank account. Completed IBG forms received by the Polytechnic will be submitted to the relevant bank for approval.

For successful IBG arrangement, students will be informed of the amount and date of IBG deduction via a tax invoice prior to deduction.

## By AXS

Payment can be made online by eNETS/Debit/Credit Card via the AXS e-Station at <http://www.axs.com.sg/axsEstation.php> or via the AXS m-Station using your mobile and tablet devices by downloading the AXS app.

Payment for outstanding course fees can also be made by ATM/Debit card at any AXS stations.

## By Cheque

Cheques must be crossed and made payable to "Temasek Polytechnic" with the student's name, admission number and contact number stated on the reverse side of the cheque. Post-dated cheques are not accepted.

## Charging Policy on Withdrawal from or Deferment of Course of Study

Students who have enrolled and wish to withdraw from or defer their studies must submit the prescribed withdrawal forms or deferment application, duly completed, to the Registrar. The effective date of withdrawal or deferment will be determined by the Registrar after all the formalities stated on the withdrawal form/deferment application have been complied with.

Before the effective date of withdrawal or deferment, students will still be deemed to be active students of the Polytechnic and liable to pay fees, regardless of their attendance for the semester. The fees payable by withdrawn or deferred students will be computed as follows:

EFFECTIVE DATE OF WITHDRAWAL OR DEFERMENT	FEE PAYABLE
i) After enrolment and up to 1st day of the semester	\$50.00 for administration fee (for new students only)
ii) After 1st day and within the 1st week of the semester	25% of applicable Tuition Fees Payable + 100% of Other Fees (excluding 100% of Sports fee, Exam fee and Miscellaneous fees).
iii) After the 1st week of the semester	100% of applicable Tuition Fee Payable + 100% of Other Fees.

# Financial Schemes

The following schemes are available for full-time subsidised diploma students. Only PSEA scheme is available for Polytechnic Foundation Programme (PFP) students.

## Tertiary Tuition Fee Subsidy (TTFS) for Malays

For details of the scheme, please refer to Yayasan Mendaki's website at [www.mendaki.org.sg](http://www.mendaki.org.sg).

## Post-Secondary Education Account (PSEA)

Full-time diploma and PFP students may apply to use their own or their siblings' PSEA for payment of Tuition Fee and Other Fees charged by the Polytechnic, subject to the terms and conditions governing PSEA set by MOE. Students have to complete application forms which are available at MOE's website and submit the form to the Polytechnic by the deadline set by the Polytechnic.

## Central Provident Fund (CPF) Education Scheme

Full-time diploma students may apply either to use their personal and/or parents' and/or siblings' and/or relative's CPF savings for payment of Tuition Fee, subject to the rules stipulated by CPF Board. As online application receives priority in processing by CPF Board, students are strongly encouraged to submit online application at CPF Board's website by the stipulated deadline.

Alternatively, they may submit their completed manual application form to the Polytechnic by the stipulated deadline. Further enquiries may be made at CPF Board (Education Scheme Section) or its branches or CPF Board's website.

## Tuition Fee Loan Scheme

Full-time diploma students may apply for Tuition Fee Loan of up to 75 percent of the Tuition Fee through DBS Bank. Details of the scheme are given in the application forms available at <http://www.tp.edu.sg/fees-and-financial-matters/student-finance-and-collection>

## SkillsFuture Credit

Students who are Singapore Citizens aged 25 and above may use their SkillsFuture Credit to pay for course fees of full-time diploma courses. For more information on the SkillsFuture Credit, please visit the following website: [www.skillsfuture.sg](http://www.skillsfuture.sg)

# Scholarships and Bursaries

## Scholarships

Through generous donations from organisations, philanthropic foundations and individuals, TP has been able to offer a wide range of scholarships to eligible students. Most scholarships cover tuition and other fees while some may cover living or even laptop allowances. The number of scholarships given out each year varies, depending on the number of qualifying students. Most scholarships are bond-free but some require the students to serve internship with the company during the course of their studies. Please visit [www.tp.edu.sg/scholarships](http://www.tp.edu.sg/scholarships) for details.

## Bursaries

Bursaries are awarded to students who require financial assistance to continue their studies at TP. There are several bursary schemes available. Please visit <http://www.tp.edu.sg/fees-and-financial-matters/financial-assistance-schemes> for details.

# Sponsorship of Courses

## Joint Polytechnic-Singapore Armed Forces Diploma Sponsorship/ Military Domain Expert Scheme (MDES) Study Award (Diploma)

The Singapore Armed Forces (SAF) offers sponsorships to GCE O Level school leavers who would like to pursue a three-year full-time diploma course.

The courses available for sponsorship in each Service are as follows:

SERVICE		
Army	Navy	Air Force
All courses are available for scholarship	All courses are available for scholarship	All Aeronautical, Aerospace, Electronics, Electrical, Mechanical Mechatronics, Computer, Manufacturing, Info-Tech and Digital-related engineering courses

## Eligibility

### Academic Requirements

The academic requirements for the above courses are the same as those stated in this prospectus.

### Other Requirements

Applicants must be

- Singapore Citizens (PR must be citizen upon contract signing);
- At least 16½ years old;
- Medically fit

## Terms of Service and Benefits

Applicants can choose to serve in the Army, Navy or Air Force as Combat, Service Specialists or Military Experts. Successful applicants will serve a minimum of five years for males (inclusive of full-time NS) and four years for females.

Tuition and other compulsory fees required by the polytechnic will be paid by the SAF. Trainees will be paid a monthly allowance of \$1,300 for Combat Specialists/ Military Experts, \$1,150 for Engineering/ Technical/ Operational-Technical Specialists and \$1,000 for Service Specialists throughout the three-year course at the polytechnic. A study bonus of \$1,200 is payable upon successful completion of each semester in one sitting.

## Career Prospects

JOINT POLYTECHNIC-SINGAPORE ARMED FORCES DIPLOMA SPONSORSHIP	
Army	<p><b><u>Combat Specialist</u></b>            You form the backbone of the organisation, taking on multifaceted roles that provide the capabilities for the organisation to function effectively. In peacetime, you will hone your skills as well as train and motivate the men and women under your charge. Should the need arise you will lead troops into battle. As an Instructor, you will pass on your experience and expertise to help groom future specialists.</p> <p><b><u>Service Vocation Specialist</u></b>            You ensure that our forces are adequately supplied to maintain operational readiness. Well trained in the latest IT and logistics management systems, you will purchase, monitor and deliver a wide range of supplies to our troops. So whether you are maintaining a stockpile of essential supplies or distributing them, your job is an incredibly important one. Our supply chain management system is renowned and as part of the logistics team, you contribute to the efficiency of our organisation.</p>
Air Force	<p><b><u>Aircrew Specialist</u></b>            You will work on board RSAF's advanced helicopters and transport aircraft. You will be in the thick of the action and armed with the skills to take on search-and-rescue missions, life-saving operations, deployment of troops to the frontline, and delivery of crucial supplies to fighting forces. You will have opportunities to go overseas for training and detachments.</p> <p><b><u>Air Defence Systems Specialist</u></b>            You are the 'Air Defender' of our airspace. You will be trained to operate advanced air defence weapon systems such as the I-Hawk, RBS 70, Mistral and SPYDER-SR. You will also be able to service all electronic components of the air defence weapon systems.</p>

## MDES STUDY AWARD (DIPLOMA)

Army	<p><b><u>Military Domain Expert</u></b>          You are groomed to deepen your expertise in technical and other selected areas of specialisation within the organisation. The specialisation areas available are intelligence, engineering, ammunition engineering and medical. You can look forward to comprehensive development courses and academic upgrading opportunities that will allow you to gain an edge over your counterparts in the private sector.</p>
Navy	<p><b><u>Naval Warfare System Expert (Electronics)</u></b>          You are the eyes and ears on board our Navy vessels. Apart from performing vital roles in maintaining combat readiness at all times, you are your shipmates' greater peace of mind.</p> <p><b><u>Naval Warfare System Expert (Electrical &amp; Control Systems)</u></b>          You are in charge of the ship's electrical system, a crucial component which enables vessels to be out at sea.</p> <p><b><u>Naval Warfare System Expert (Marine Systems)</u></b>          You specialise in marine propulsion systems, electro-hydraulic equipment, refrigeration and air conditioning systems, ventilation systems, freshwater generators, compressed air systems and pollution control systems.</p>
Air Force	<p><b><u>Air Force Engineer (Maintenance)</u></b>          You will work with a team of professionals on the latest aviation and weapon systems, maintain and service sophisticated combat aircraft, electronics and communication systems. Gain expertise in avionics, aircraft propulsion systems, structures, aviation instruments and more.</p> <p><b><u>Air Operations &amp; Systems Expert</u></b>          You will get to master the advanced technology that enables air operations. You will work in an information and knowledge-rich operational environment, supported by complex state-of-the-art Surveillance Sensors, Advanced Networks and Command, Control &amp; Communication Systems. You are a critical player in the 3rd Generation Air Force.</p>

## Career Advancement

After acquiring sufficient skills in the respective specialist fields, graduates will be eligible for professional upgrading to higher vocational levels corresponding to higher appointments. Those with outstanding performance, leadership qualities and management abilities may also be converted to Officers.

## Application Procedure

Applicants are requested to apply PERSONALLY after the release of the GCE O Level examination results at:

SAF Careers Centre  
3 Depot Road #01-66  
Singapore 109680

All applications to this Scheme are independent of those applied through the Ministry of Education's Joint Admissions Exercise (JAE). You are therefore advised to apply for courses under the JAE in addition to your application to the SAF Careers Centre. For enquiries, please contact the SAF Careers Centre at the following telephone numbers:

Army : 1800-6872769  
Navy : 1800-2780000  
Air Force : 1800-2701010

**In summary, the Joint Polytechnic-SAF Diploma Sponsorship Scheme (JPSDS) and MDES Study Award (Diploma) allow you to study for a diploma course of your choice and be financially independent at the same time. Also, once you obtain your diploma, your future will be secured with an exciting and challenging career awaiting you in the Singapore Armed Forces.**

# Home Team Diploma Sponsorship

The Home Team Diploma Sponsorship is awarded to talented polytechnic students who demonstrate leadership, have the drive and resilience to take on challenges and who share MHA's vision to keep Singapore safe and secure. We sponsor you for a three-year full-time diploma education in any of the local five polytechnics.

The sponsorship will not only provide financial incentives during your diploma studies, but also provide a fulfilling and rewarding career with developmental opportunities to acquire new skills and upgrade your academic qualifications when you join the Home Team. Upon graduation, you will pursue a career with one of the following departments of the Ministry of Home Affairs:

- Central Narcotics Bureau (CNB)
- Immigration & Checkpoints Authority (ICA)
- Singapore Civil Defence Force (SCDF)
- Singapore Police Force (SPF)
- Singapore Prison Service (SPS)

## Tiers

There are two tiers to the Home Team Diploma Sponsorship:

### The Home Team Diploma Sponsorship (Merit)

This offers a monthly allowance of \$1,300, payment of tuition and compulsory fees, and a study bonus of \$1,200 per semester if the student passes all modules in that semester.

### The Home Team Diploma Sponsorship (Study)

This offers a monthly allowance of \$1,000, payment of tuition and compulsory fees and a study bonus of \$1,200 per semester if the student passes all modules in that semester.

## Eligibility Criteria

Applicants must meet the following eligibility criteria:

- Singapore Citizen;
- Good O level/Nitec/Higher Nitec results;
- Existing Polytechnic students;
- Medically and physically fit (e.g. have normal colour vision, have at least a "Pass" for NAPFA);
- A strong interest in a career with the Home Team

## Appointment into the Home Team upon Graduation

Upon graduation, recipients will be appointed to the Home Team department at the rank and starting salary for Diploma holders.

## Bond

All recipients will serve a bond of four years with the Home Team.

## National Service (NS) Liability

Male recipients who have yet to serve your NS may choose one of the five departments listed above.

For those who chose SPF or SCDF, they will serve as regular officers with SPF or SCDF for five years under the Minimum Term of Engagement (MTE) to be deemed as having completed their NS obligations. The bond period of four years will run concurrently with the five-year MTE period.

Males who choose to go to CNB, ICA or SPS will be required to serve out your NS obligations at SAF, SPF or SCDF as determined by CMPB before commencing your four-year bond with the department.

## Application Procedure

Interested applicants may apply online at: [www.mha.gov.sg/hometeamdip](http://www.mha.gov.sg/hometeamdip)

The application window is from 1 September 2018 to 31 October 2018.

Interested applicants who have queries or require further clarification may visit our website at [www.mha.gov.sg/careers](http://www.mha.gov.sg/careers) or email us at [mha\\_careers@mha.gov.sg](mailto:mha_careers@mha.gov.sg).



# Furthering Your Studies

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# Universities Offering Advanced Standing

## Australia

- Australian International Hotel School
- Australian Maritime College
- Bond University
- Blue Mountains International Hotel Management School
- Central Queensland University
- Charles Darwin University
- Charles Sturt University
- Curtin University
- Deakin University
- Edith Cowan University
- Flinders University
- Griffith University
- James Cook University
- International College of Hotel Management
- La Trobe University
- Macquarie University
- Monash University
- Murdoch University
- Queensland University of Technology
- RMIT University
- Southern Cross University
- Swinburne University of Technology
- The Australian National University
- The University of Adelaide
- The University of Melbourne
- The University of New South Wales
- The University of Newcastle
- The University of Queensland
- The University of Sydney
- The University of Western Australia
- University of Ballarat
- University of Canberra
- University of New England
- University of South Australia

- University of Southern Queensland
- University of the Sunshine Coast
- University of Tasmania
- University of Technology, Sydney
- University of Western Sydney
- University of Wollongong
- William Angliss Institute

## Canada

- Fairleigh Dickinson University
- Ryerson University
- University of Lethbridge

## China

- Jilin College of the Arts

## Germany

- Macromedia University for Media & Communication

## Italy

- Domus Academy

## New Zealand

- Auckland University of Technology
- Lincoln University
- Massey University
- The University of Auckland
- The University of Waikato
- The University of Otago

## Singapore

- BCA Academy – The University of Newcastle, Australia
- Nanyang Technological University
- National University of Singapore
- Ngee Ann – Adelaide – The University of Adelaide, Australia
- Singapore University of Social Sciences
- Singapore Institute of Technology
- Singapore Institute of Technology - Digipen Institute of Technology
- Singapore Institute of Technology - Newcastle University (UK)
- Singapore Institute of Technology - Technical University of Munich
- Singapore Institute of Technology - The Culinary Institute of America
- Singapore Institute of Technology - The Glasgow School of Art
- Singapore Institute of Technology - University of Glasgow
- Singapore Institute of Technology - University of Nevada, Las Vegas
- Singapore Institute of Technology - University of Liverpool
- Singapore Institute of Technology - Wheelock College
- Singapore Management University
- Singapore University of Technology and Design

## Switzerland

- Ecole Hoteliere Lausanne
- European University
- Les Roches International School of Hotel Management
- Lucerne University of Applied Sciences & Arts
- University of Applied Sciences Northwestern Switzerland
- Hotel Institute Montreux
- International Hotel and Tourism Training Institute (School of Hotel Management)
- Swiss Hotel Management School

## United Kingdom

- Anglia Ruskin University
- Aston University
- Birmingham City University
- Brunel University
- Cardiff University
- City University
- Coventry University
- Durham University
- Edinburgh Napier University
- Glasgow Caledonian University
- Heriot-Watt University
- IFS School of Finance
- London Metropolitan University
- Loughborough University
- Manchester Metropolitan University
- Middlesex University
- Newcastle University
- Northumbria University
- Nottingham Trent University
- Oxford Brookes University
- Queen Mary, University of London

- Queen's University Belfast
- Regent's Business School London
- Royal Holloway, University of London
- Staffordshire University
- The University of Edinburgh
- The University of Manchester
- University of Aberdeen
- University of Abertay Dundee
- University of Bath
- University of Birmingham
- University of Bradford
- University of Brighton
- University of Bristol
- University of Central Lancashire
- University of Dundee
- University of East Anglia
- University of Essex
- University of Exeter
- University of Glasgow
- University of Greenwich
- University of Huddersfield
- University of Kent
- University of Leeds
- University of Leicester
- University of Lincoln
- University of Liverpool
- University of Nottingham
- University of Reading
- University of Salford
- University of Sheffield
- University of Southampton
- University of Strathclyde
- University of Sunderland
- University of Surrey
- University of Sussex
- University of the West of England, Bristol
- University of the West of Scotland
- University of Ulster
- University of Wales, Swansea
- University of Warwick
- University of York
- York St John University

## United States of America

- Embry-Riddle Aeronautical University (Asia)
- Linfield College
- University of Oregon

## Professional Bodies in Singapore

- Accounting and Corporate Regulatory Authority
- Agri-Food & Veterinary Authority of Singapore
- Board of Architects Singapore
- Civil Aviation Authority of Singapore
- Ministry of Health Optometrists and Opticians Board, Singapore
- Ministry of Law, Singapore
- Professional Engineers Board, Singapore
- Singapore Dental Council
- Singapore Institute of Surveyors and Valuers
- Singapore Nursing Board
- Singapore Nutrition and Dietetics Association
- Singapore Medical Council
- Singapore Pharmacy Council
- Singapore Physiotherapy Association

### Note:

*While every effort is made to ensure the accuracy and currency of the information here, our graduates are advised to check with the relevant institutions and professional bodies before deciding on an institution of choice. As a general rule, most universities in the United States that do not enter into institutional agreements with TP on advanced standing, would still welcome applications from our graduates and evaluate each application to grant the appropriate level of advanced standing where possible.*

# Temasek SkillsFuture Academy

The Temasek SkillsFuture Academy (TSA) at TP is committed to the professional development of working adults and SkillsFuture initiatives. We offer both full qualification and short courses, and conduct customised training programmes for organisations.

Courses offered are mainly in the areas of:

- Advanced Manufacturing
- Aerospace
- Air Transport
- Biologics, Energy & Chemical
- Business Management
- Early Childhood Education
- Engineering
- Financial Management
- Business Analytics & Smart Solutions
- Para-Legal Studies
- Security & Safety Management
- Personal Development

To help working adults acquire valuable knowledge and develop relevant skills to meet the challenges in a dynamic technology-driven economy, the following part-time full qualification courses are offered:

- Diploma in Applied Science (Aquaculture)
- Diploma in Applied Science (Chemical Technology)
- Diploma in Business Practice (Business Administration)
- Diploma in Early Childhood Care & Education – Teaching
- Diploma in Engineering (Aerospace)
- Diploma in Engineering (Aviation Management)
- Diploma in Engineering (Operations & Systems Management)
- Diploma in Infocomm and Digital Media (ICT Systems, Services & Support)
- Diploma in Legal Executive Studies
- Diploma in Police & Security Studies
- Diploma in Security & Fire Safety Studies
- Specialist Diploma in Accounting & Finance
- Specialist Diploma in Big Data Management
- Specialist Diploma in Biopharmaceutical Technology
- Specialist Diploma in Branding Design
- Specialist Diploma in Business Analytics
- Specialist Diploma in Cloud Data Centre Technology & Management
- Specialist Diploma in Energy Management & Sustainable Design
- Specialist Diploma in Environment & Water Technology
- Specialist Diploma in Financial Advisory Services
- Specialist Diploma in Hotel Operations & Management
- Specialist Diploma in IC Assembly & Test
- Specialist Diploma in Industrial Internet of Things
- Specialist Diploma in Integrated Digital Communication
- Specialist Diploma in Internet of Things
- Specialist Diploma in Information Security & Forensics
- Specialist Diploma in Laboratory Management & Instrumentation
- Specialist Diploma in Robotics and Automation
- Specialist Diploma in Semiconductor Technology
- Specialist Diploma in Wafer Fabrication
- Advanced Diploma in Early Childhood Leadership
- Advanced Diploma in Early Childhood Teaching & Learning

Temasek Polytechnic's Diploma, Specialist Diploma and Advanced Diploma programmes are developed in consultation with industry and relevant government agencies to ensure greater curriculum-relevancy to the training needs of working adults. Each programme is aimed at providing learners with knowledge and skills in core industry domain areas.

In support of the SkillsFuture Initiatives, TSA has launched the Earn and Learn Programme (ELP). The ELP is a work-learn programme designed to give fresh ITE and polytechnic graduates a head-start in careers related to their discipline of study. It provides them with more opportunities to build on the skills and knowledge they acquired in school and to better support their transition into the workforce.

Temasek Polytechnic is the appointed ELP Programme Manager of the following sectors:

- Aerospace
- Air Transport
- Building Services
- Business and Service
- Design
- Energy and Chemicals
- Electronics
- Information & Communications Technology

List of ELP Programmes:

- WSQ Higher Certificate in Aerospace (6 tracks)
- WSQ Specialist Diploma in Aerospace
- 2 Modular Certificates stackable to the Diploma in Applied Science (Chemical Technology)
- 2 Modular Certificates stackable to the Diploma in Applied Science (Aquaculture)
- 2 Modular Certificates stackable to the Diploma in Engineering (Aviation Management)
- 3 Modular Certificates stackable to the Diploma in Infocomm and Digital Media (ICT Systems, Services & Support)
- Specialist Diploma in Big Data & Analytics
- Specialist Diploma in Branding Design
- Specialist Diploma in Financial Advisory Services
- Specialist Diploma in IC Assembly & Test
- Specialist Diploma in Industrial Internet of Things
- Specialist Diploma in Integrated Digital Communication
- Specialist Diploma in Network Management
- Specialist Diploma in Robotics and Automation
- Specialist Diploma in Smart Solutions
- Specialist Diploma in Wafer Fabrication
- SIT-TP Joint ELP in Building Services
- SUSS-TP Joint ELP in Business and Service
- SUSS-TP Joint ELP in Infocomm Technology

Temasek Polytechnic works closely with various agencies to develop a series of Manpower Development Programmes and Professional Conversion Programmes to support the growth of industries through reskilling of competencies.

The programmes are:

- Attach-and-Train Programme for Biologics Sector
- Local Biologics Skills Training Programme
- Professional Conversion Programme for the Aerospace Sector
- Professional Conversion Programme for the Air Transport Sector

Temasek Polytechnic is also the appointed Continuing Education & Training (CET) Centre by SkillsFuture Singapore (SSG) for the following sectors:

- Aerospace
- Biologics/Pharmaceutical
- Security

CET centres are public training providers which offer a comprehensive array of SSG courses as well as additional services, such as employment advisory and placement.



# Corporate Information

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# Board of Governors

## Chairman

Mr Lee Kok Choy  
Chairman  
Board of Governors  
Temasek Polytechnic

## Deputy Chairman

Mr Gay Chee Cheong  
Deputy Chairman  
Board of Governors  
Temasek Polytechnic

## Members

Mr Peter Lam  
Principal & CEO  
Temasek Polytechnic

Ms Fang Eu-Lin  
Partner  
PricewaterhouseCoopers LLP

RADM Alan Goh Kim Hua  
Group Chief  
Policy & Strategy  
Defence Policy Group  
Ministry of Defence

Mr Jin Yuen Yee  
Head  
Global Macro, Fixed Income  
GIC Pte Ltd

Prof Kam Chan Hin  
Deputy Provost (Education)  
President's Office  
Nanyang Technological University

Mr Patrick Low  
Founder/Creative Partner  
Goodfellas Consultancy Pte Ltd

Ms Ngiam Siew Ying  
Deputy Secretary (Policy)  
Ministry of Health

Mr Ong Kong Hong  
Zonal Director (Schools), South  
Ministry of Education

Dr Rufaihah Binte Abdul Jalil  
Research Assistant Professor  
Department of Surgery  
Yong Loo Lin School of Medicine  
National University of Singapore

Prof Alex Siow  
Director  
Strategic Technology Management Institute  
National University of Singapore

Mr Tan Kai Hoe  
President & CEO  
Accuron Technologies Limited

Mr Tan Peng Yam  
Chief Executive  
Defence Science & Technology Agency

Mr Adrian Tan Soon Chye  
Chief Executive Officer  
The Ad Planet Group

Mr Russell Tham  
Corporate Vice President  
Regional President  
South East Asia  
Corporate Asia Business Development  
Applied Materials

Mr Andrew Tjioe Ka Men  
Executive Chairman  
Tung Lok Restaurants (2000) Ltd  
Tung Lok Group

## Secretary

Mr Daniel Yeow  
Senior Director & Registrar  
Temasek Polytechnic

# Administration Committee

## Chairman

Mr Lee Kok Choy  
Chairman  
Board of Governors  
Temasek Polytechnic

## Deputy Chairman

Mr Gay Chee Cheong  
Deputy Chairman  
Board of Governors  
Temasek Polytechnic

## Members

Mr Peter Lam  
Principal & CEO  
Temasek Polytechnic

Mr Tan Kai Hoe  
President & CEO  
Accuron Technologies Limited

Mr Adrian Tan Soon Chye  
Chief Executive Officer  
The Ad Planet Group

Mr Russell Tham  
Corporate Vice President  
Regional President, South East Asia  
Corporate Asia Business Development  
Applied Materials

## Secretary

Mr Mun Kwok Kin  
Director  
Human Resource  
Temasek Polytechnic

# Senate

## Chairman

Mr Peter Lam  
Principal & CEO

## Secretary

Mr Daniel Yeow  
Senior Director  
Registrar

## Permanent Members

Mrs Lay-Tan Siok Lie  
Deputy Principal

Mrs Lee-Lim Sok Keow  
Deputy Principal

Ms Anita Kuan  
Deputy Principal

Mr Albert Yeo  
Senior Director

Dr Lee Chee Wee  
Director, School of Applied Science

Mrs Lai-Low Sock Cheng  
Director, School of Business

Mr Lim Chong Jin  
Director, School of Design

Mr Wong Kia Ngee  
Director, School of Engineering

Mr Ben Lim  
Director, School of Humanities & Social Sciences

Mr Oh Chin Lock  
Director, School of Informatics & IT

Mr Sng Choon Leng  
Director, Academic Affairs  
Head, Centre for Foundation Studies

## Appointed Members

Mr Tang Ming Fai  
Director, IT Services

Dr Moira Lee  
Director, Learning Academy

Dr Eng Pin Kwang  
Director, Strategic & Quality Development Department

Mr John Leong  
Director, Temasek SkillsFuture Academy

Mr Lim Thim Veng  
Chairman, Academic Programme Validation Committee

## Elected Members

(Term of Office: 25 April 2016 to 15 April 2018)

Mrs Tay-Chan Su Chin  
Deputy Director, Academic & Student Development  
School of Applied Science

Mrs Cheryl Wee-Teo Ni Ni  
Assistant Director, Administrative Services  
School of Business

Mr Soh Yong Hern  
Deputy Director, Academic & Curriculum Planning  
School of Design

Mr Cheah Swee Hock  
Deputy Director, Academic & Continuing Education  
School of Engineering

Mr Chua Ping Tzeun  
Course Manager, Diploma in Psychology Studies  
School of Humanities & Social Sciences

Ms Pereira Judy  
Senior Manager, Academic Development & Planning  
School of Informatics & IT

# School Advisory Committees

## School of Applied Science

### Chairman

Mr Andrew Tjioe  
Founder & Executive Chairman, Tung Lok Group  
President of the Restaurant Association of Singapore (RAS)

### Deputy Chairman

Dr Lee Chee Wee  
Director  
Temasek Polytechnic  
School of Applied Science

### Members

Dr Allan Lim  
Group Manager  
Nestle R&D Centre (Pte) Ltd

Ms Ang Hui Gek  
Director  
Allied Health

Dr Annie Ling Mei Chuan  
Director  
Adult Health Division  
Health Promotion Board

Ms Chang Kwei Fern  
Director  
Accreditation  
SPRING Singapore

Dr Cheng Wen Haur  
Deputy Chief Executive Officer &  
Chief Life Sciences Officer  
Wildlife Reserves Singapore

Mr Eric Ng  
Chief Executive  
Apollo Aquaculture Group

Ms Goh Han Yan  
Head, Consumer Businesses  
Economic Development Board

Ms Lee Choon-Siew  
Audit Director  
Supply Chain  
GlaxoSmithKline Pte Ltd

Ms Low Min Yong  
Assistant Group Director  
Applied Sciences Group  
Health Sciences Authority

Mr Lucas Ng Hong Kiang  
General Manager (Plant)  
Petrochemical Corporation of Singapore (Pte) Ltd

Mr Lu Jin Ping  
Managing Director  
Admaterials Technologies Pte Ltd

Dr Manjeet Singh  
Director  
Procurement Office (A\*PO)  
A\*STAR

Mr Mock Siew Fai  
General Manager (Plant)  
Mitsui Phenols (S) Pte Ltd

Assoc Prof Elizabeth Ng Siew Kuan  
Deputy Chairman  
Centre for Law & Business  
National University of Singapore

Dr Rufaihah Binte Abdul Jalil  
Research Assistant Professor  
Department of Surgery  
Yong Loo Lin School of Medicine  
National University of Singapore

Mr Teng Chong Seng  
Director  
EHS  
Pfizer Asia Pacific Pte Ltd

Dr Wong Hon Mun  
Group Director  
AGRI Establishment Regulation Group  
Agri-Food and Veterinary Authority

# School Advisory Committees

## School of Business

### Chairman

Mr Tan Peng Yam  
Chief Executive  
Defence Science & Technology Agency (DSTA)

### Deputy Chairman

Mrs Lai-Low Sock Cheng  
Director  
School of Business

### Members

Mr Antoine Chahwan  
Regional Vice President & General Manager  
Four Seasons Hotel Singapore

Mr Ho Tuck Chuen  
Group Chief Financial Officer  
Jurong Town Corporation

Ms Frieda Lee  
General Manager  
Webnatics Singapore

Mr Desmond Lim  
Chairman  
Les Amis Group

Ms Sherri Lim  
Chief Park Operations & Revenue Officer  
Wildlife Reserves Singapore

Ms Lim Suat Jien  
General Manager  
Mount Faber Leisure Group

Mr Lok Vi Ming  
SC, Managing Director  
LVM Law Chambers LLC

Mr Low Cheong Kee  
Managing Director  
Home-Fix DIY Pte Ltd

Mr Clarence Pong  
Vice President  
Brand and Communications  
MediaCorp Pte Ltd

Mr Quek Khor-Ping  
Program Director  
IBM ASEAN Watson Center of Competency

Mr Dhirendra Shantilal  
Board Director & Head, Asia Pacific  
Fircroft Group

Mr Tan Kai Hoe  
President & CEO  
Accuron Technologies Limited

Mr Dickson Yeo Suan Liang  
Senior Logistics Consultant  
SWISSLOG Warehouse & Distribution Solutions

# School Advisory Committees

## School of Design

### Chairman

Mr Adrian Tan  
CEO  
The Ad Planet Group

### Deputy Chairman

Mr Lim Chong Jin  
Director  
School of Design  
Temasek Polytechnic

### Members

Ms Rita Zahara Alhadi  
CEO & Founder  
Reta Pte Ltd

Mr Bojan Blecic  
Vice President and Head, Experience Design  
OCBC Bank

Mr Jeffrey Cheong  
President  
Tribal Worldwide Asia Pacific

Ms Cindy Goh Su Min  
Executive Vice President  
Corporate & Operations  
Meiban Group Pte Ltd

Mr Kong Yit San  
Assistant Chief Executive Officer  
(Park Management & Lifestyle Cluster)  
National Parks Board

Mr Joseph Lau Tse Kit  
Managing Director  
LAUD Architects Pte Ltd

Mr Pann Lim  
Creative Director  
Kinetic

Mr Brian Low Lip Chee  
Director (Landscape & Design)  
Development & Procurement Group  
Housing & Development Board

Mr Patrick Low  
Creative Partner  
Goodfellas Consultancy Pte Ltd

Mr Kittichai Reawsanguanwong  
Founder & Creative Director  
Sketch Design Consultants Pte Ltd

Mr Seah Chee Huang  
Director  
DP Architects Ptd Ltd

Dr Russell Arthur Smith  
Principal  
Sitetectonix Pte Ltd

Ms Daisy Tan Dai Shij  
General Manager  
VF Singapore & Malaysia  
VF Brands Pte Ltd

Mr Sebastian Tan  
Managing Director & Principal Photographer  
Shooting Gallery/Wishing Well

Ms Susan Teh  
Corporate Advisor, National Art Gallery of Singapore  
ST Paramount Pte Ltd

Mr Wong Kok Keong  
Senior Manager  
Product Innovation Team  
Samsung Electronics

Mr Yong Teck Ming  
National Director  
Habitat for Humanity, Singapore

# School Advisory Committees

## School of Engineering

### Chairman

Prof Kam Chan Hin  
Deputy Provost (Education)  
President's Office  
Nanyang Technological University

### Deputy Chairman

Mr Wong Kia Ngee  
Director  
School of Engineering  
Temasek Polytechnic

### Members

Prof Lap Chan  
Adjunct Professor  
Singapore University of Technology & Design

Mr Chen Keng Nam  
Business Leader - Technology & Engineering  
GE Aviation, Engine Services - Singapore

Dr Chong Chee Leong  
Managing Director  
Aviation Virtual Pte Ltd

Mr Chua Leong Chuan, Jeffrey  
Chief Executive Officer  
Ascendas Services  
Ascendas-Sunbridge Pte Ltd

Mr John Fernandes  
Area Director  
Commercial Markets Strategy Group  
Microsoft Asia Pacific

Dr Kwok Wai Onn, Richard  
Executive Vice President/  
Chief Technology Officer  
Singapore Technologies Kinetics Ltd

Mr Lim Beng Yong, Simon  
Group Director  
Industry Development  
SPRING Singapore

Mr Lim Yeow Khee  
President  
Singapore Institute of Aerospace Engineers;  
Managing Director  
LYK Aerospace (Singapore) Pte Ltd

Mr Vincent Low  
Vice President, Business Development  
G-Energy Global Pte Ltd

Mr Tan Teik Seng  
Director  
Teleios SC Pte Ltd

Mr Russell Tham  
Corporate Vice President  
Regional President, South East Asia Corporate Asia  
Business Development  
Applied Materials

Prof Wong Wai Choong, Lawrence  
Deputy Director (Strategic Developments)  
Interactive and Digital Media Institute  
National University of Singapore

# School Advisory Committees

## School of Humanities & Social Sciences

### Chairperson

Ms Ngiam Siew Ying  
Deputy Secretary (Policy)  
Ministry of Health

### Deputy Chairman

Mr Ben Lim  
Director  
School of Humanities & Social Sciences  
Temasek Polytechnic

### Members

Mr Victor Bay  
Chief Executive Officer  
PAP Community Foundation

Associate Professor Angelique Chan  
Executive Director  
Centre for Ageing Research and Education  
Duke-NUS Medical School

Dr Jacqueline Chung  
Senior Principal & Academic Director  
St. James' Church Kindergarten

Dr Majeed Khader  
Chief Psychologist, Ministry of Home Affairs  
Director, Home Team Behavioural Sciences Centre  
Deputy Director, Police Psychological Services Division  
Senior Consultant Psychologist  
Ministry of Home Affairs

Mrs Helen Lim-Yang  
Principal Consultant  
ROHEI Corporation

Associate Professor Kenneth Poon  
Associate Dean  
Office of Educational Research  
National Institute of Education

Mr Peter Tan  
Director and Senior Principal Organisational Psychologist  
Community Psychology Hub

Mr Wong Meng Meng, Senior Counsel  
Founder-Consultant  
WongPartnership LLP

### Secretary

Mrs Pearl Chong  
Deputy Director  
School of Humanities & Social Sciences  
Temasek Polytechnic

# School Advisory Committees

## School of Informatics & IT

### Chairman

Prof Alex Siow  
Director  
Strategic Technology Management Institute  
National University of Singapore

### Deputy Chairperson

Mr Oh Chin Lock  
Director, School of Informatics & IT

### Members

Ms Chong Yoke Sim  
Director  
Business Development  
Public Sector & Healthcare OG  
Accenture Pte Ltd

Mr Andrew Chow  
President  
ST Electronics (Info-Comm Systems) Pte Ltd

Mr Alan Goh  
Chief Information Officer  
M1  
(ITMA Council Representative)

Mr Francis Fong  
Managing Director  
Enterprise Data & Managed Services, Singtel

Ms Kimberley Foo  
Deputy Director  
Human Capital Development  
Infocomm Media Development Authority of Singapore

Mr Eric Goh  
Managing Director  
Dell EMC Corporation, Singapore

Mr Vincent Goh  
Vice President, APJ  
Cyberark Software (S'pore) Pte Ltd

Mr Frank Koo  
Head of Southeast Asia, Korea, Japan  
Talent Solutions and Learning Solutions  
LinkedIn

Mr Kiren Kumar  
Assistant Managing Director  
Infocomm Media Group  
Economic Development Board

Mr Bill Lee  
Managing Director  
Azendian Solutions Pte Ltd

Mr Naveen Menon  
President, ASEAN  
Cisco Systems (USA) Pte Ltd

Mr V R Srivatsan  
Managing Director  
Adobe, Southeast Asia

Ms Soh Siew Choo  
Managing Director and  
Head Core Systems Technology  
DBS Bank

Ms Claudia Tan  
Head, Public Sector  
NCS Pte Ltd

Ms Elsie Tan  
General Manager, Public Sector ASEAN  
IBM Pte Ltd

Mr Wong Heng Chew  
President  
Fujitsu Asia Pte Ltd

Ms Shirley Wong Swee Ping  
Managing Partner  
TNF Ventures Pte Ltd

# Senior Management

Mr Peter Lam  
Principal & CEO

Mrs Lay-Tan Siok Lie  
Deputy Principal  
Covering Director, Enterprise Risk Management

Mrs Lee-Lim Sok Keow  
Deputy Principal

Ms Anita Kuan  
Deputy Principal

Mr Daniel Yeow  
Senior Director  
Registrar

Mr Albert Yeo  
Senior Director

Mr Aw Tuan Kee  
Senior Director

Dr Lee Chee Wee  
Director, School of Applied Science

Mrs Lai-Low Sock Cheng  
Director, School of Business

Mr Lim Chong Jin  
Director, School of Design

Mr Wong Kia Ngee  
Director, School of Engineering

Mr Ben Lim  
Director, School of Humanities & Social Sciences

Mr Oh Chin Lock  
Director, School of Informatics & IT

Mr Sng Choon Leng  
Director, Academic Affairs

Mr Brendan Wong  
Director, Corporate Communications

Mr Ng Koon Seng  
Director, Corporate Procurement

Mr Gary Png  
Director, Estates & Facilities Management

Ms Chia Li Hwei  
Director, Finance & Administration

Mr Mun Kwok Kin  
Director, Human Resource

Mr Chan Kah Guan  
Director, Industry Partnerships  
Director, TP Smart Nation Programme Office

Mr Tang Ming Fai  
Director, IT Services

Mr Samuel Ang  
Director, Innovation & Entrepreneurship

Mr Teo Sze Cheng  
Director, International Relations

Dr Moira Lee  
Director, Learning Academy

Mrs Puspa Yeow  
Director, Library

Mr Song Kwok Yuen  
Director, Research & Technology Development

Ms Elaine Ho  
Director, Staff Capability Development

Dr Eng Pin Kwang  
Director, Strategic & Quality Development

Mr Raymond Teo  
Director, Student Development & Alumni Affairs

Mr John Leong  
Director, Temasek SkillsFuture Academy

# Academic Directors and Course Managers

## School of Applied Science

### Director

Dr Lee Chee Wee  
BSc, MSc, PhD

### Deputy Directors

Academic & Student Development  
Mrs Tay-Chan Su Chin  
BSc (Hons), MBA

Skills & Enterprise Development  
Dr Goh Lay Beng  
BSc, MSc, PhD

### Assistant Director

Quality Development & Planning  
Mr Loh Gin Hin  
MSc, MEd

### Course Managers

Applied Food Science & Nutrition  
Mdm Ong Eng Gim  
BSc (Dietetics)

Baking & Culinary Science  
Mr Sin Fook Choy, Paul  
MSc

Biomedical Science  
Biotechnology  
Mr Zhang Pengchi  
MSc, MEd

Chemical Engineering  
Dr Leong Meng Fatt  
BSc, PhD

Pharmaceutical Science  
Dr Maisha Foo Chun Shin  
BSc, PhD

Veterinary Technology  
Dr Jomer Bo Lucanas  
DVM, MSc

# Academic Directors and Course Managers

## School of Business

### Director

Mrs Lai-Low Sock Cheng  
BSc, MBA

### Deputy Directors

Mr Jerry Chen  
BSc (Hons), MSc (Industrial Engineering)

Mr Desmond Lim  
BA, BSocSci (Hons), MSocSci

Ms Tan Siew Kim  
BA, MA (Communication Management), Grad Dip MM

Mr Yong Kit Mun  
BEng (Hons), MBA

### Assistant Directors

Mrs June Yeo-Chiang  
BAcc (Hons), CA Singapore

Mrs Cheryl Wee-Teo  
BEng, MBus (Logistics)

Mr Tan Hsien Wei  
BSc (HRTA), HDip in HM

### Course Managers

Accounting & Finance  
Mr Daniel Ng  
BAcc (Hons), CFA

Business  
Mr Ng Lim Seng, Vincent  
BSc, MSc, MBA, Grad Dip MM

Business Information Technology  
Mr Benedict Fernandez  
BEng, MAIDT, Post Grad Dip KE

Business Studies Grouping  
Mr Terence Lou  
BAcc, BScPsy, MSocSc

Communications & Media Management  
Mr Ignatius Teo  
BBA (Hons), MBA

Culinary & Catering Management  
Mr Jeremy Sim  
BBus (Restaurant & Catering), MA (Gastronomy)

Hospitality & Tourism Management  
Mr Gevin Png  
BA (Hons), MBA (Tourism Specialisation)

Law & Management  
Mr Looi Kwok Peng  
LLB (Hons), Advocate & Solicitor  
FSIArb

Leisure & Events Management  
Ms Grace Chia  
BBus (Marketing), MBA, Dip in Tourism Mgmt

Logistics & Operations Management  
Mr Foo Choo Yen  
BEng (Hon), MSc (ISE), CPIM, ACTA

Marketing  
Mr Gary Lin  
BSocSci (Hons), MBA

Retail Management  
Mr Samuel Tan  
BBA, MBA (Wholesaling & Retailing), Dip Visual Com

# Academic Directors and Course Managers

## School of Design

### Director

Mr Lim Chong Jin  
BCD

### Centre Head

Centre for Design Communication  
BeyonDesign Centre  
Mr Lim Chong Jin  
BCD

### Deputy Directors

Administration & Student Development  
Ms Vaanathi Rajandran  
MEd, PGDipEd

Academic & Curriculum Planning  
Mr Soh Yong Hern  
BFA (Hons), Graphic Design

### Assistant Director

Trends and Futures  
Mr Ernest Paul  
MA (SEAs), BA (Hons), PGDipEd

Research Innovation & Enterprise  
Mr Benny Tan  
MDesign, BA

Administration  
Mr John Lim  
BE, PGDipEd

### Course Managers

Apparel Design & Merchandising  
Dr Lee Kyung Mi  
PhD (Clothing & Textiles), MA (Clothing & Textiles),  
BA (Home Economics)

Communication Design  
Mr Yeoh Pang Jin  
BA (Multimedia Design), Dip

Digital Film & Television  
Ms Gail Goodenough  
MEd, BA (Journalism)

Environment Design  
Interior Architecture & Design  
Ms Rachna Johri  
MEd, B Arch

Product & Industrial Design  
Mr Elvis Tay  
BA (Multimedia Design)

### Managers

Academic Support & Quality  
Ms Rachna Johri  
MEd, B Arch

BeyonDesign Centre  
Mr Chow Chee Yong  
MA, BFA (Hons)

Community Engagement  
Ms Aida Binte Khalid  
B Arch, BA (AS)

Contextual Studies  
Foundation Studies  
Mr Ernest Paul  
MA (SEAs), BA (Hons), PGDipEd

Design Communication  
Ms Pat Chong

# Academic Directors and Course Managers

## School of Engineering

### Director

Mr Wong Kia Ngee  
BEng (Hons), MSc (EE)

### Deputy Directors

Academic & Continuing Education  
Mr Cheah Swee Hock  
BEng (Hons), MEng

Technology  
Mr Khoo Hock  
BSc (Hons), MSc (Eng)

Industry & Partnership Development  
Mr William See Kok Kee  
BEng (Hons)

ICT & e-Learning  
Dr Yin Choon Meng  
BEng (Hons), PhD (EE)

Academic Programmes & Outreach  
Mr Chang Hark Loong  
MSc (EE)

Communication & Engagement  
Ms Katherine Rajah  
BA (Hons), BEd, MEd

### Assistant Directors

Resource Management & Planning  
Mr Ang Beng Chye  
BEng, MSc

Academic Planning & Operations  
Mr Ng Kee Wee  
BEng (Hons), MEng

Skills & Academic Development  
Mr Chia Sie Yong  
BEng, MSc

Student Development  
Dr Tony Halim  
BEng, MEng, PhD

### Senior Managers

Academic Operations & Quality  
Mrs Hong-Lee Luang Hong  
BEng, MSc

Work-based Learning & Continuing Education  
Mdm Soh Lay Kuan  
BSc (EE), MSc (Eng), MBA

Infocomm Technology  
Dr Tan Hock Soon  
BEng (Hons), MSc, EdD

Teaching & Learning  
Mdm Wee May Lin  
BEng (Hons), MEd

Academic & Administrative Support  
Mr Richard Seow  
BEng, MSc

### Centre Managers / Heads

Biomedical Engineering Research Centre  
Mr Er Jui Pin  
BEng (Hons), MSc (EE), MBA

Clean Energy Research Centre  
Dr Kwan Kian Hoong  
BEng (Hons), PhD

Interactive Digital Centre Asia  
Dr Yin Choon Meng  
BEng (Hons), PhD (EE)

Robotics & Automation Centre  
Mr Ng Yong Seng  
BEng

Temasek Aviation Academy  
Aviation Research Centre  
Mr Yue Keng Mun  
MSc

Temasek Microelectronics Centre  
Dr Sun Ling Ling  
BEng, PhD

TP-LTT Centre  
Mr Chia Kwee Heng  
BSc (ME), MSc

## Course Managers

3D Interactive Media Technology  
Mr Yan Seow Chiang  
BSc (EE), MEng (Tel)

Aerospace Electronics  
Mr Tang Fook Heng  
BEng (Hons), MSc (EE)

Aerospace Engineering  
Mr Yue Keng Mun  
MSc

Aviation Management & Services  
Mr Abbas Ismail  
BA

Biomedical Engineering  
Mr Lim Chuck Mang  
BSc (EE), MSc

Business Process & Systems Engineering  
Mr Yeo Teck Chye  
BEng (ME)

Clean Energy  
Mr Ng Kee Wee  
BEng (Hons), MEng

Computer Engineering  
Mdm Calaiselvy  
BEng (Hons), MTech

Common Engineering Programme  
Electrical & Electronic Engineering  
Programme  
Mechatronics & Aerospace Programme  
Mr Max Teoh Cheng Yong  
BEng (Hons), MSc (EE)

Electronics  
Mr Lim Chuck Mang  
BSc (EE), MSc

Green Building & Sustainability  
Mr Ho Kuan Tat, Jackson  
BEng

Integrated Facility Management  
Ms Joanne Koh Phuay Theng  
BSc (Bldg)

Mechatronics  
Ms Chan Choy Peng  
BEng (Hons), PhM

Microelectronics  
Mr Ng Kee Wee  
BEng (Hons), MEng

# Academic Directors and Course Managers

## School of Humanities & Social Sciences

### Director

Mr Ben Lim  
MBA (Distinction), MEd, BSc (Hons)

### Deputy Directors

Administration & Capability Development  
Mrs Pearl Chong-Lee  
MHRM, BComm (Hons)

Student Development & Quality Management,  
Head/Centre for Applied Psychology (CAP)  
Mr Vincent Bong  
B.Sc (Econs), ACIS, PGDipHR

Continuing Education & Training,  
Head/Centre for Early Education (CEE)  
Mr Ang Teck Hua  
MEd (Ed Psych), BComp

Outreach & Industry Development,  
Head/Centre for Applied Gerontology (CAG)  
Mr Eric Koh  
MSc (Merit) Gerontology, MSc HFEng, BSc (Hons)  
Industrial Design

### Course Managers

Early Childhood Studies  
Dr Winston Ang  
EdD, MEd, BFA, Dip Ed

Gerontological Management Studies  
Ms Julie Spencer  
MBA, Grad Dip Ed, BA, RN

Psychology Studies  
Mr Chua Ping Tzeun  
MAIOP, B.Soc.Sci.(Hons)

# Academic Directors and Course Managers

## School of Informatics & IT

### Director

Mr Oh Chin Lock  
BSc (Comp & Info Sc)(Hons), GCIP Law, MSc (IPM)

### Deputy Directors

Ms Esther Chia  
BA, BSocSci (Hons), MMediaPrac

Ms Mandy Mak  
BSc (Comp Sc), MSc (CSN)

### Acting Assistant Director

Mr Seah Chong Poh  
BEng, MPhil, CISSP, CISA

### Course Managers

Big Data Management & Governance  
Ms Ho Li Chin  
BEng (EE), MSc (EE), MIT (BA)

Business Intelligence & Analytics  
Ms Ho Li Chin  
BEng (EE), MSc (EE), MIT (BA)

Cybersecurity & Digital Forensics  
Mr Willie Lui  
B.S. (Comp Sc) (Hons)

Financial Business Informatics  
Mr Ryan Lim  
BBBA (Management & Marketing), Msc TIP, PMP

Game Design & Development  
Dr Edirisinghe, EM Nalaka S  
(Covering Manager)  
B.S. (Comp Sc), S.M. (Comp Sc), Ed.D.

Information Technology  
Dr Edirisinghe, EM Nalaka S  
B.S. (Comp Sc), S.M. (Comp Sc), Ed.D.

# Academic Calendar 2018/2019

APRIL SEMESTER	PERIOD
<b>Term 1</b>	16 Apr 2018 – 10 Jun 2018
Term Break	11 Jun 2018 – 24 Jun 2018
<b>Term 2</b>	25 Jun 2018 – 12 Aug 2018
Study Week	13 Aug 2018 – 19 Aug 2018
<b>Semestral Examination</b>	20 Aug 2018 – 31 Aug 2018
Vacation	1 Sep 2018 – 14 Oct 2018

OCTOBER SEMESTER	PERIOD
<b>Term 3</b>	15 Oct 2018 – 16 Dec 2018
Term Break	17 Dec 2018 – 1 Jan 2019*
<b>Term 4</b>	2 Jan 2019 – 10 Feb 2019
Study Week	11 Feb 2019 – 17 Feb 2019
<b>Semestral Examination</b>	18 Feb 2019 – 1 Mar 2019
Vacation	2 Mar 2019 – 14 Apr 2019

\*1 January 2019 (Tuesday) is a public holiday. Term 4 will start on 2 January 2019 (Wednesday).

## School of Design Academic Calendar

APRIL SEMESTER	PERIOD
<b>Term 1</b>	16 Apr 2018 – 10 Jun 2018
Term Break	11 Jun 2018 – 24 Jun 2018
<b>Term 2</b>	25 Jun 2018 – 19 Aug 2018
Vacation	20 Aug 2018 – 14 Oct 2018

OCTOBER SEMESTER	PERIOD
<b>Term 3</b>	15 Oct 2018 – 9 Dec 2018
Term Break	10 Dec 2018 – 1 Jan 2019*
<b>Term 4</b>	2 Jan 2019 – 24 Feb 2019
Vacation	25 Feb 2019 – 14 Apr 2019

\*Term Break to be extended to 31 December 2018 (Monday), eve of the New Year 2019. 1 January 2019 (Tuesday) is a public holiday.

# Getting to TP



# Campus Map

## SOUTH

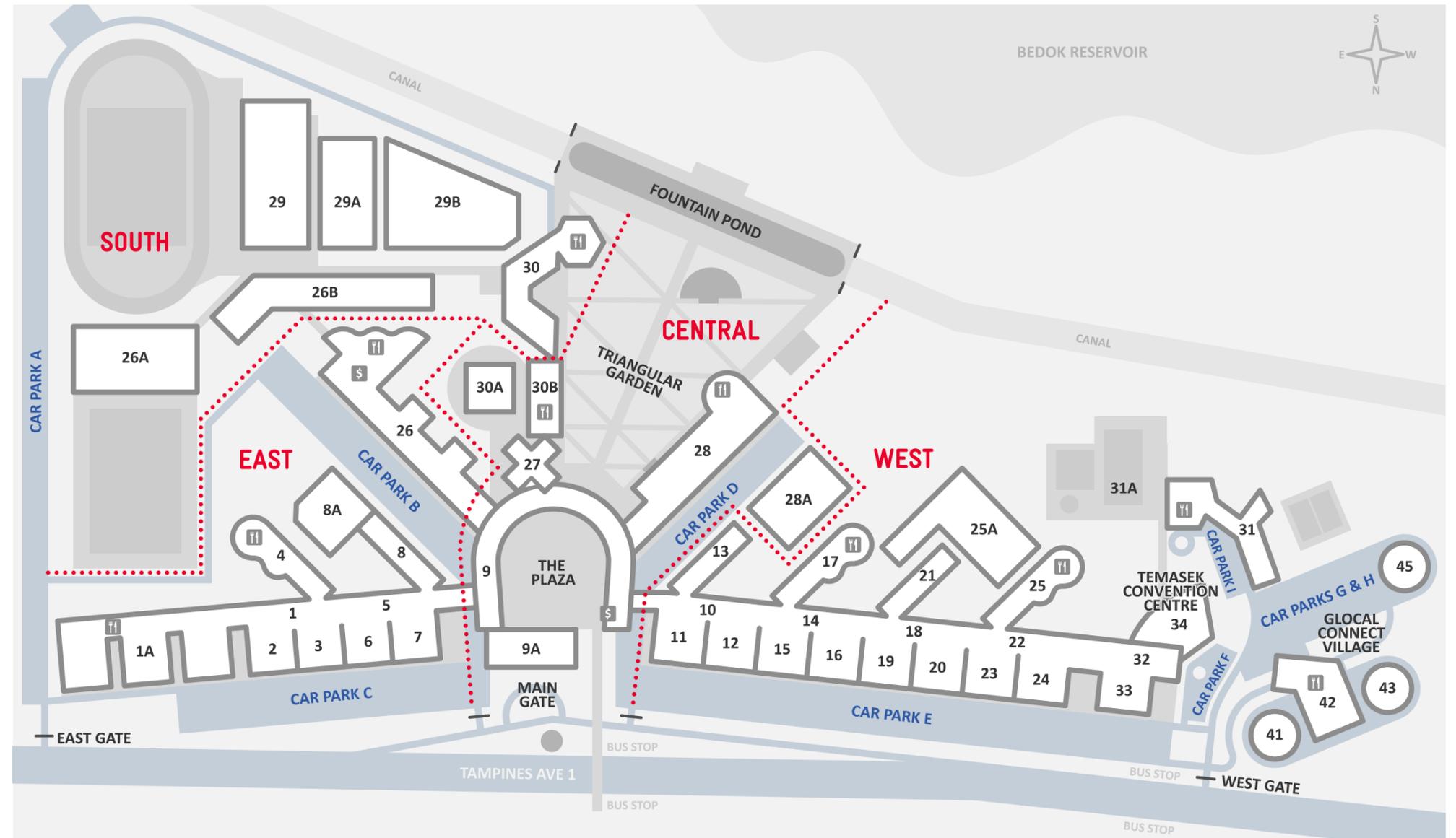
- Blk 26A Sports & Arts Centre
- Blk 26B Auditorium 3 and Foyer  
Temasek SkillsFuture Academy (TSA)  
School of Business (BUS)
- Blk 29 Sports Complex
- Blk 29A Temasek Tourism Academy (TTA)
- Blk 29B Singapore Institute of Technology (SIT)
- Blk 30 -

## EAST

- Blk 1A School of Humanities & Social Sciences (HSS)
- Blk 1 - 4 School of Informatics & IT (IIT)
- Blk 5 - 8 School of Applied Science (ASC)
- Blk 8A Centre for Aquaculture and Veterinary Science (CAVS)
- Blk 26 School of Business (BUS)

## CENTRAL

- Blk 9 Administration  
Auditoria 1 & 2 and Foyer  
Student Services
- Blk 9A Main Foyer
- Blk 27 Library
- Blk 28 - 28A School of Design (DES)
- Blk 30A Student and Alumni Hub
- Blk 30B Garden Fiesta
- The Plaza
- Triangular Gardens & Fountain Pond



## WEST

- Blk 10 - 25A School of Engineering (ENG)
- Blk 31 Temasek Culinary Academy (TCA)
- Blk 31A Swimming Complex
- Blk 32 - 33 School of Engineering (ENG)
- Blk 34 Temasek Convention Center (TCC) and Foyer
- Blk 41 - 43, 45 Glocal Connect Village (GCV)

## AMENITIES

-  ATM
-  Food

# Contact Us

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email: irhotline@tp.edu.sg

Learning Academy  
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Student Development & Alumni Affairs  
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