MISSION & VISION

Mission

To prepare school-leavers and working adults for a future of dynamic change, with relevant knowledge, life-long skills, character, and a thirst for continuous improvement.

Vision

To be a world-class institution in the global education network, reputed for our programmes, applied research, managerial excellence and innovative corporate culture.

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WELCOME TO TP

Established in April 1990, Temasek Polytechnic (TP) operates from a 30-hectare campus fronting the scenic Bedok Reservoir. It currently has a student population of about 15,000 and a staff strength of about 1,300.

There are six academic schools at TP – the Applied Science, Business, Design, Engineering, Informatics & IT, as well as the Humanities & Social Sciences Schools. Together, they offer 51 market-driven full-time diploma courses that prepare students to be ready for further studies, future careers and life.

TP is recognised as a polytechnic that embraces excellence. In May 2013, the Public Service Milestone Award was again presented to TP, in recognition of its attainment of the ISO 9000 Quality Management Systems certification, the People Developer Standard, and the Singapore Quality Class. The Award is testament to TP's dedicated and concerted efforts made towards maintaining its reputable standing of quality.

In its continued quest for excellence, the Polytechnic received the Singapore Quality Class STAR certification in January 2012. TP also successfully expanded the scope of its ISO 9000 certification in June 2012 to include diploma and other courses leading to formal awards. In addition, TP achieved the People Developer re-certification in February 2013, and the ISO 14001 Environmental Management System re-certification in February 2014.

With its dedication to ensure a high standard in the design and provision of its courses, as well as commitment to providing a holistic education that is industry-relevant, TP brings education to life and life to education. TP students are also well-prepared to face the challenges of the future.

MESSAGE FROM PRINCIPAL & CEO

I am delighted that you are considering Temasek Polytechnic (TP) for your post-secondary education. In the pages of this prospectus, you will learn a little more about what the TP experience offers.

TP adopts a whole-polytechnic approach to provide a broad range of experiences and opportunities for our students. Through our curricula and co-curricular programmes – including internships, project work, study trips, sports and arts activities, cross-disciplinary learning, Diploma Plus programme – our students get to acquire a broad scope of knowledge, hone their soft skills, and strengthen their character and leadership abilities. Throughout the experience, they will be guided by our dedicated and caring lecturers, whilst being immersed in a school spirit that is vibrant and truly unique.

Currently, TP offers 51 diploma courses across six major disciplines, each aimed at providing you with industry-relevant knowledge and critical life skills. Our networks with industry and reputable institutions around the world enable us to provide valuable internship opportunities for our students to apply the skills and knowledge TP has given to them, to real life situations. In addition, they give recognition to our graduates in employment and further education.

To get an even more immersive understanding of what TP offers, I encourage you to visit our Open House, held in January each year, to get an even better understanding of why our students find their experience here so enriching.

I look forward to welcoming you to TP in 2015.

BOO KHENG HUA
Principal & Chief Executive Officer

LEARNING AT TP

Learning at a polytechnic will mean a significant adjustment for many students. At TP, you can be assured of a smooth transition to poly life with our innovative teaching approaches and systems. These are designed to develop your potential by maximising your learning opportunities and honing your talents.

Teaching Excellence

TP lecturers are recruited based on their proven track record in industry and their commitment to enhance student learning. All lecturers go through a professional development programme in pedagogy conducted by the polytechnic's Learning Academy. Lecturers use a wide repertoire of learning-teaching approaches which include the use of new technologies, interactive digital media and state-of-the-art facilities to help you learn as well as ignite your passion for learning.

Problem-Based Learning

As a TP student, you will gain first-hand experience of the Problem-based Learning (PBL) approach that TP has adopted since 1997. PBL is an innovative learning approach that goes beyond content knowledge and helps you acquire learning, communication, problem-solving and teamwork skills. Through this, you will develop abilities in independent study, self-reflection and creative thinking. Under PBL, the lecturer functions as a facilitator and an activator of student learning whilst you, the student, become a self-directed and active learner. All this means that PBL will make you a better learner and more adept at handling the challenges that you will encounter in the future.

TP was awarded The Enterprise Challenge (Innovation Award) from the Prime Minister's Office in 2001. This award was for developing and implementing a PBL model as an educational innovation for the knowledge-based economy. In 2003, we were awarded The Enterprise Challenge Shield, also from the Prime Minister's Office. This prestigious award recognises the most outstanding project which has created the highest new value to the public service.

Flexible Academic System

All courses at TP come under the Flexible Academic System for Temasek (FAST). This system provides you with greater flexibility in matching your interest and aptitude, while adapting your academic workload to suit your pace of learning.

In this academic framework, all diploma course structures have three main categories of subjects:

- TP Core Subjects – compulsory subjects for all TP students
- Diploma Subjects – subjects specific to your diploma course
- Cross-Disciplinary Subjects – subjects beyond your diploma specialisation

Under FAST, each subject is a distinct and self-contained unit of study. As such, you need only re-take subjects that you have failed instead of repeating the entire year or semester of study. To give you a good foundation, some subjects include pre-requisites and co-requisites that must be met before you are allowed to take the subjects. Academic advisors in the six Schools at TP will help you make your choices wisely in order to meet your academic and personal goals.

TP has obtained and will continue to seek accreditation, both at course and subject levels, with other institutions. You will be able to gain credits from other institutions and use them towards meeting the minimum graduation requirements at TP. By the same token, you can also use the credits earned at TP to seek credit exemption for furthering your studies.

Learning Across Disciplines

In our effort to provide you with a holistic education at TP, you will be introduced to Cross-Disciplinary Subjects (CDS), i.e., subjects beyond your diploma specialisation, as well as those that promote character building and a global perspective. The subjects are intended to ensure our students have a broad-based education when they graduate.

TP's six Schools and the Centre for Transcultural Studies offer a wide range of interesting CDS for you to choose from, including subjects in the arts, humanities and social sciences. This broad-based education will give you an edge in a world of work that increasingly bridges academic disciplines. For a list of these subjects, please refer to the section on "Cross-Disciplinary Subjects".

Diploma Plus Programme

The Diploma Plus Programme comprises a series of subjects, grouped in clusters according to their specific field of study. Each subject cluster consists of four foundational subjects in that given field. Students who are ranked in the top 10 per cent in the first semester of their first year are eligible to sign up for the programme. A certificate will be awarded to students who successfully complete the four subjects in the subject cluster.

The subject clusters are:

- Certificate in Business Fundamentals
- Certificate in Cross-Cultural Studies
- Certificate in Design Fundamentals
- Certificate in Digital Literacies
- Certificate in Innovation & Entrepreneurship
- Certificate in Life Sciences Fundamentals
- Certificate in Management & Enterprise
- Certificate in Psychology Fundamentals

Students who have done well in their O-level Chinese and English language papers are eligible to sign up for the Certificate in China Studies. This is an alternative pathway to the Diploma Plus Programme.

Character Education

The Centre for Character & Leadership Education at TP provides experiential opportunities for you to learn how to lead a more meaningful and effective life by developing character traits that are valued in the workplace and family, traits that become all the more important if you are in a leadership position. Through the Centre's programmes, you will learn about making ethical decisions that are in line with values that can guide your life, increase your personal effectiveness and add value to your future career.

Entrepreneurship

With a mission to nurture, groom and grow successful entrepreneurs through a holistic approach, the TP Entrepreneurship Centre was set up in 2004. Here,

students are given the opportunity to develop their entrepreneurial talent regardless of the course of study. Our students get access to real experience through real life projects and opportunities to start their own business.

E-Learning

In the course of your study in TP, you will have many opportunities to engage in e-learning. You will acquire valuable skills in learning how to learn and how to create knowledge in an online environment. You will have the opportunity to be exposed to both independent and collaborative learning online through TP's platform, OLIVE (Online Learning Interactive Virtual Environment). The flexibility of e-learning means that you will be able to study when and where you like in TP's wireless environment.

You can also look forward to using leading specialised software applications and new technologies, including those related to IDM (Interactive Digital Media), to enhance skills and understanding in your chosen field.

STUDENT LIFE AT TP

Life as a TP student is as exciting as you make it to be. The campus is abuzz with student activities all year round. Besides live concerts, numerous arts events and sports competitions, our students have the opportunity to participate in local and overseas community projects, camps, expeditions, student leadership programmes and many other meaningful events that develop students beyond their academic pursuits.

Co-Curricular Activities

From sports to arts to leadership training, you will experience a variety of co-curricular activities (CCAs) that provides you with a well-rounded educational experience and contribute to your personal enrichment. There are more than 100 CCAs to choose from, and you will surely find one that matches your interest, be it in sports, performing arts, interest groups or studies club.

Having adopted the beautiful Bedok Reservoir which is located right next to the campus, we provide abundant opportunities for you to enjoy a wide range of water sports such as dragon boating, kayaking and wakeboarding.

A Caring Campus

The Campus Care Network (CCN) promotes a caring culture within the TP community. We create a family-like environment which emphasises personal rapport between lecturers and students. You will receive support from your Care Group (a group of your peers), which is led by your Care Person – a lecturer dedicated to taking care of the group throughout your three years at TP. In this way, we ensure your personal well-being and growth.

Each year, the CCN Day Carnival held on campus brings staff and students together in the spirit of caring and sharing to raise funds for needy students. This poly-wide event aims to cultivate community-spiritedness, while providing an opportunity for staff and student bonding.

Student Wellness and Counselling

As you pursue an exciting and enriching educational experience at TP, there may be times when the challenges that come your way seem overwhelming, and you need help through these challenges. The Student Wellness & Counselling Centre is staffed by qualified professional counsellors who are here to help you cope with difficulties of the social, emotional, financial, career or any other nature. In addition, our counsellors also conduct wellness workshops which teach you life-skills such as how to manage relationship troubles, how to handle stress, time management and study skills.

SUPPORTING YOUR STUDIES

The Library and Information Resources

Located at the heart of the campus, the Library provides resources, services and facilities that support the learning and research needs of our students.

The Library's resources range from print to electronic books, journals to databases, audio-visual materials to online videos, as well as electronic archives of TP's publications and memorabilia. As a student, you can use LIBsearch to discover these diverse resources from a single search box. To instil life-long skills and independent learning, the Library conducts workshops on searching online databases, citing references and evaluating resources. You can also utilise the project advisory service if you need help with assignments on specific topics.

Our students have distinctive learning preferences. For some, learning is very much a social activity; for others, learning is a journey of self-discovery – the Library caters to all learning needs. With even more planned for the near future, you can look forward to multi-screen computer stations, learning pods for group discussions, a multi-purpose area for exhibitions and performances, and a quiet zone for individual learning.

TP students can connect to the Library through its blog, Facebook, and Pinterest pages to find out about activities, new arrivals and research tips. You can also download the TP Library app that was developed by our own students. The app offers a convenient way to search the catalogue, renew loans, check the opening hours, and more.

Centre for Transcultural Studies

The Centre for TransCultural Studies (CTS) was established in 2009 as part of TP's internationalisation strategy. This academic centre, unique to TP, offers Cross-Disciplinary Subjects and two Diploma Plus Clusters. With its focus on arts, culture, language and earth stewardship, the CTS hopes to provide TP students with a global mindset and understand how they can interact meaningfully with others as responsible global citizens.

CTS is housed in the Glocal Connect Village (GCV) which has an Art Gallery, a portal that serves as a platform for performances, 50 units of residential learning space for students who take the subject Transnational Studies and for international exchange programmes, as well as classrooms and a student clubhouse.

E-Campus

TP's e-Campus framework provides the Polytechnic with a secure architecture and high-speed network. This enables the safe and fast delivery of intelligent teaching and learning applications. The framework leverages on the use of technologies such as mobile applications, online teaching platforms, a Learning Management System, social media and a virtual desktop infrastructure – these all go towards making teaching and learning on campus much more interactive and engaging.

Our lecturers are also able to deliver lessons via our campus-wide backbone – a 10-Gigabit Ethernet – to students rapidly and conveniently. This way, TP students have access to their lessons from within and outside the campus on any device platform, allowing for learning anyway, anytime through innovative pedagogies for an education experience that prepares them for the 21st century and the world of work.

SCHOOL OF APPLIED SCIENCE

Contents

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, plantlet production unit 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), Communication Skills, and Cross-Disciplinary Subjects, 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.

Temasek Applied Science Research Centre

This is a 1,400 square-metre centralised location for major research activities in chemical and life sciences within the School. Its state-of-the-art facilities promote inter-disciplinary research among staff and collaborative work with the industry and institutions of higher learning. The centre comprises various laboratory facilities such as Certified Class 10,000 lab, Bio-Safety Labs, Analytical Testing & Services Labs, Nutrition Research Facility and various specialised research labs for Traditional Chinese Medicine, proteomics, fermentation and plant biotechnology.

Temasek Analytical Services Facility

TP is the first institution in Singapore to be awarded accreditation under the Singapore Laboratory Accreditation Scheme (SINGLAS) by the Singapore Accreditation Council (SAC) for its Chemical and Biological Testing Laboratory in April 2009. This is a stamp of approval for its high quality assurance standard in the testing services provided to its customers. The analytical testing facility is well equipped with a wide range of state-of-the-art analytical instruments, supported by a team of competent staff with multi-disciplinary experience in laboratory quality management, testing and test methods development. The accreditation is granted in the field of Chemical & Biological Testing for 16 test methods for food products and eight methods for Traditional Chinese Medicine.

Temasek Animal Facility

Comprising two workstations, namely the Laboratory Animal workstation and the Aquaculture workstation, this facility provides a conducive training environment for students to learn essential skills related to aquaculture, aquatic conservation and laboratory animal science and technology.

Bistro Walk Training Café and Bakery

This F&B Learning Enterprise is a contemporary Mediterranean-style café with an adjoining bakery and pastry section. It is a training ground for students to apply their knowledge and skills in managing a real fast casual dining concept café and catering business. Students are not only involved in the planning and preparation of various menu items and baked products; they are also involved in the daily operations of the café serving different set menus with healthier menu options. The venue also provides an opportunity for students to feature and market test their developed recipes. It also serves TP's very own frozen dessert that is produced specially by the School's KoolWerkz training factory.

Centre for Applied Nutrition Services (CANS)

With an integrated team of experts, this Centre provides support and offers 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 Traditional Medicine (CTM)

The Centre is set up to be a one-stop centre supporting the Traditional Medicine (TM) industry in Singapore as well as the region. The Centre aims to assist in the modernisation of the industry and enhance its knowledge, while supporting government agencies and regulating authorities in TM-related matters. With dedicated project teams, the CTM offers Consultancy Services and conducts Applied Research in TM-related industry aspects. The CTM also promotes TM through its Education Programmes and TM publications.

Chromatography & Mass Spectrometry Research Facility

This facility serves as a training ground for students conducting project work under the different research schemes offered by the School. It is also used for staff and consultancy projects as well as collaborative projects with other research groups. It is fully equipped with research instruments including High Performance Liquid Chromatography with UV and light scattering detector, Ion-Trapped Liquid Chromatography – Mass Spectrometer (LC-MS) with a nitrogen generator, Flash Chromatography and flow cytometer.

Culinary Laboratories

This specialised facility comprises three culinary laboratories: the Asian, Bakery/ Pastry and Western kitchens. These kitchens are equipped with some of the latest equipment to support training for the culinary as well as scientific/ technological experimentation. Each kitchen is built in a unique style to facilitate learning, and simulate actual commercial kitchen settings, such that students are able to gain extensive hands-on training in fundamental baking and culinary skills.

Deli Delite Training Food Kiosk

This learning enterprise is a training venue for students as well as graduates to operate and manage a takeaway food kiosk. The kiosk offers a range of quick takeaway food and beverage; among them are French crepes and smoothies. This set up is also operated to simulate that of other commercially run food kiosks to evaluate its commercial viability and sustainability.

Food and Culinary Applied Research Facility

This facility serves as a venue to conduct food and culinary-related consultancy and applied research projects. It is also a training facility for short courses, workshops and seminars for partners in related industries, and the public. The facility includes a 100-seater culinary demo theatre, specialised R&D laboratories for noodles, frozen dessert and beverages, as well as culinary and baking R&D kitchens. These, together with an ideation cum sensory testing venue, provide ease in facilitating product testing of food product proto-types, experimentation on food and beverages, and training.

Green Materials Development Facility

This facility is equipped with pilot scale processing and testing equipment to conduct various research activities with the industry to recycle solid waste like wood, horticultural, fly ash and plastic waste into useful products like souvenirs, park benches, kerbs, pavements and building structures. Major characterisation equipment in the facility include universal test machine to measure the mechanical properties of materials; drop weight impact test setup to study the impact resistance of composites; thermal conductivity apparatus to assess the thermal resistance of insulation materials; permeability and surface resistivity testers to study materials durability; ultrasonic pulse velocity tester to examine the quality of a sample; and ICP-OES (inductively coupled plasma-optical emission spectroscopy) equipment to perform toxicity tests on raw materials and finished products.

Bioplastics Research Facility

This research facility consists of pilot scale and laboratory scale processing equipment to process wastewater into bioplastics. The novel processing conditions adopted by the facility allows for both the treatment of wastewater and production of plastics to occur at the same time.

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.

Food Product Development Facility

This facility enables the formulation of both processed and ready-to-eat food products like spreads, drinks, baked products, desserts and sauces. It supports the School's frozen dessert capabilities by developing prototypes for our training factory. It also houses both food science and food processing laboratories that allow scaling up of formulations. The facility also houses a sensory evaluation laboratory to conduct consumer testing of prototypes.

Applied Nutrition Research Facility

This facility houses the accredited Glycemic Index Research Unit (GIRU), nutrition assessment unit, clinical testing laboratory, metabolic kitchen and dietary counselling unit. The accredited GIRU has the capability to test the Glycemic Index, insulinemic index, glycemic response of single and mixed meals, as well as conduct appetite studies. It is also well-equipped with sophisticated equipment like the Bod Pod, indirect calorimetry for measurement of Basal Metabolic Rate, and glycemic clamp. The facility undertakes applied nutrition research projects in areas of clinical and sports nutrition, geriatric and pediatric nutrition, as well as supports various forms of community nutrition and wellness programmes.

Nanotechnology Research Facility

Nanotechnology research involves creating and using structures, devices and systems that have novel properties and functions due to their small sizes. This facility is equipped with equipment for the fabrication of inorganic and organic nanoparticles and their surface modification for a variety of applications. It also houses various state-of-the-art analytical equipment such as powder X-ray diffraction spectroscopy and inductively coupled plasma optical emission spectrometry for nanoparticle characterisation. It provides staff and students with the opportunity to work on industrial consultancy projects and be directly involved in the emerging field of nanotechnology, ie, R&D at the atomic, molecular or macromolecular levels. Current projects focus on carbon nanotube based gas sensors, magnetic nanoparticles as biosensors and alternative cancer treatment.

Pharmaceutical Technology Facility

This facility, designed to meet current good manufacturing practices (cGMP), is complete with a class 100k drug formulation and preparation room, and class 10k aseptic dispensing room. It allows students to experience gowning procedures, secondary pharmaceutical manufacturing of various dosage forms such as syrups, tablets and creams as well as aseptic drug dispensing commonly used in the preparation of parenteral nutrition and chemotherapeutic drugs. The facility is equipped with the necessary utilities and documentation according to regulatory requirements simulating a cGMP certified manufacturing facility.

Plant Tissue Culture Training Facility

This facility serves as a platform for students to acquire knowledge of operation for the mass propagation of tissue culture plantlets in an actual production environment. Here, students are not only trained in specific tissue culture laboratory skills, they are also exposed to the process and workflow in a real-life production environment. In this way, they can better appreciate the industrial applications of different laboratory techniques taught in class.

Proteomics Research Facility

This facility positions the School as a centre for proteomics R&D and training. It is equipped with instruments for protein prefractionation, two-dimensional gel analysis, two-dimensional high performance liquid chromatography, gel spot cutting/processing and protein identification (via MALDI) so as to provide the capability to perform the main steps of a proteomics workflow. It also has the capabilities for molecular and biochemical analysis of the identified proteins.

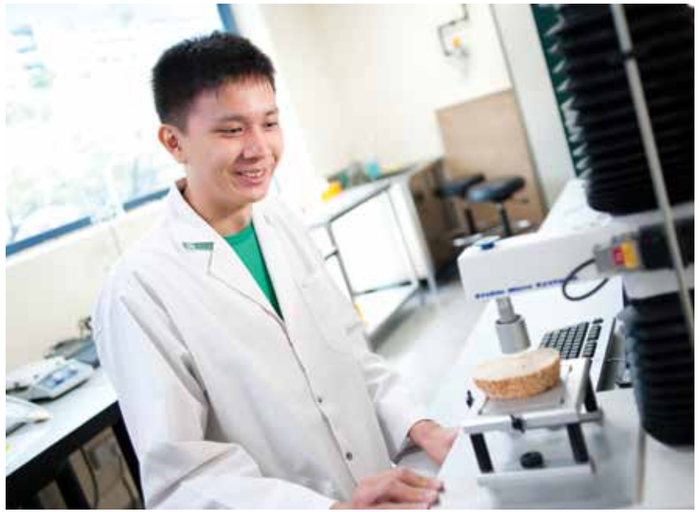
TP Animal Clinic

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 Social Learning Enterprise

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

APPLIED FOOD SCIENCE & NUTRITION



TP's student intern is outstanding, and able to produce high quality work. Not only is he focused and dedicated, he thinks in-depth about issues, adapts well to changes and takes the initiative to solve problems.

- Dr Mary Chong
Research Scientist
Singapore Institute of Clinical Sciences

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, understand the role it plays in our well-being, 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 the 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 design and evaluate healthier meals for different population groups, assess their nutritional status, develop nutrition education programmes, and understand the management of diet-related diseases.

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.

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 Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Elective Subjects	: min 17 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 129 credit units

Minimum Entry Requirements

English Language (EL1)	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following Science subjects:	Grades 1 - 6

Biology, Chemistry, Combined Science, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Any two other subjects, excluding CCA -

Note: Applicants who do not meet the Science requirement but with Food & Nutrition/ Human & Social Biology may apply through Direct Admissions Exercise (DAE).

** 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
ACS2002	Career Communication	2	2
ASI3012	Student Internship Programme	3	14

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACH1002	Organic & Biological Chemistry	1	5
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
AFS1001	Food Chemistry	1	5
AMA1003	Mathematics & Statistics 1	1	3
AMA1004	Mathematics & Statistics 2	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1003	Basic Microbiology	1	5
ANT1001	Science in Food Preparation	1	4
ANT1002	Basic Nutrition & Food	1	4
AFS2002	Food Preservation & Quality Assurance	2	4
AFS2003	Food Preservation & Quality Assurance Project	2	5
AFS2007	Food Additives	2	4
AFS2009	Sensory Science	2	4
ANT2001	Nutrition Across the Life Span	2	5
ANT2004	Principles of Biochemistry & Physiology for Nutrition	2	5
ANT2009	Community Health & Nutrition	2	4
AMP3014	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABC2013	Food Service Operations	2	5
ABC2017	Food Service Technology Application	2	4
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
Food Safety in Product Development			
AFS2008	Applied Food Sanitation	2	3
AFS3006	Product Development & Marketing	3	3
AFS3007	Food Safety	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BAKING & CULINARY SCIENCE

Equipped with both the scientific knowledge and culinary skills, their working styles are easily recognised in the kitchen. They are forward-looking and also highly adaptable to impromptu situations and think on their feet. In a nutshell, they are individuals that form a harmonious, fun and great kitchen team!

- Chef Francois Mermilliod
Executive Chef / Director
Absinthe Restaurant Français

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 tampering chocolate, reducing sauces to roasting the perfect duck. With your scientific know-how, 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/ ingredients companies. The course also hones your entrepreneurial skills to help you embark on your own business ventures.

Career Opportunities

Our graduates are well-positioned to join the F&B industry as baking technologists, junior chefs, 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 food or culinary science, as well as culinary management courses.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 31 credit units
Diploma Subjects	
Core Subjects	: 83 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 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, as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Candidates who are shortlisted through the JPSAE 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".

Minimum Entry Requirements

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

<u>Note</u>
With the curriculum emphasis on Asian culinary with science to develop innovative recipes and products, students will be required to handle various forms of food ingredients. These include meats of various sources such as pork and beef (and their by-products); food additives such as stabilisers, emulsifiers and gelling agents of animal origin; as well as alcohol-based products such as wines, spirits and flavourings. Students may not necessarily consume their developed recipes/ products but will be required to evaluate and assess their physical/ chemical properties.

In training students to be prepared for the F&B industry, students are required to work in a fast-paced and warm environment of the various commercial grade kitchens over a substantial length of time of between 6 to 8 hours a day during certain terms.

Students are also required to purchase uniform sets, safety shoes, bakery and knife sets and textbooks. These are not included in the tuition fees.

**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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ACS2002	Career Communication	2	2
ASI3013	Student Internship Programme	3	14

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
ACH1002	Organic & Biological Chemistry	1	5
AFS1001	Food Chemistry	1	5
AMA1004	Mathematics & Statistics 2	1	3
AMB1003	Basic Microbiology	1	5
ANT1002	Basic Nutrition & Food	1	4
ABC2014	Baking & Confectionery Science	2	4
ABC2016	Baking & Pastry Practicum	2	6
ABC2017	Food Service Technology Application	2	4
ABC2018	Asian Cuisines Practicum	2	7
ABC2019	Food Safety Application	2	3
ABC2020	Western Cuisines Practicum	2	5
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
F&B Enterprise			
ABC3006	Baking & Culinary Operations	3	7
ABC3007	Food Service Principles of Management	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BIOMEDICAL SCIENCE

TP students generate creativity, enthusiasm and self-discipline during their laboratory attachments here at KK Women's & Children's Hospital. Their diligent nature and competency as shown through their project assignments stand them in good stead for future employment.

- Lim Geok Hoon
Senior Manager
Department of Pathology and Lab Medicine
KK Women's & Children's Hospital

Play a part 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 cure and prevent 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/ hospitals, taught by experienced teaching staff and industry practitioners. The compulsory structured internship in relevant industries carried out concurrently with major projects helps you to experience real working life and allows you to apply theory to practice on actual industry projects.
for different population groups, assess their nutritional status, develop nutrition education programmes, and understand the management of diet-related diseases.

Career Opportunities

Our graduates can work as medical technologists or laboratory technologists in hospital/ clinical laboratories, medical research centres, central testing laboratories and clinical research organisations. They also possess the skillsets to be sales and marketing executives of medical products and product application specialists.

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".

Minimum Entry Requirements

English Language (EL1)	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following Science subjects:	Grades 1 - 6

Biology, Chemistry, Combined Science, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).
Any two other subjects, excluding CCA -

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

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 84 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
ACS2002	Career Communication	2	2
ASI3015	Student Internship Programme	3	14

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1003	Applied Human Physiology	1	3
ABT1001	Cell Biology	1	4
ABT1002	Biomolecules	1	4
ACH1003	Organic Chemistry 1	1	5
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
AMA1003	Mathematics & Statistics 1	1	3
AMA1004	Mathematics & Statistics 2	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1003	Basic Microbiology	1	5
ABM2008	Histological Techniques	2	3
ABM2009	Fundamentals of Pathology	2	4
ABM2012	Biostatistics	2	3
ABM2013	Immunology	2	4
ABM2014	Clinical Chemistry	2	5
ABT2007	Molecular Genetics	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 Clusters to be offered by the course, and the subjects under these Clusters, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Laboratory Medicine			
ABM2011	Haematology	2	4
ABM3004	Laboratory Management & Quality Assurance	3	4
ABM3006	Blood Banking	3	3
Clinical Research			
ABM2015	Patient Recruitment & Management	2	4
ABM3007	Research Methods & Bioethics	3	4
ABM3008	Quality Management & Legislation	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BIOTECHNOLOGY

"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*

Genes, molecular biology, cloning, immunology, therapeutics, diagnostics, forensics, health and diseases – do these terms excite you? Are you fascinated about how living systems work? 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 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, biochemistry, microbiology, immunology, genomics, proteomics, plant biotechnology, immunology and other key supporting technology essential for biomedical and scientific research. 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 forensics and bioanalytics. 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 five-month attachment either locally or overseas in the biotechnology and biomedical industries.

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 agrotechnology 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 research skills and knowledge gained by our graduates are applicable worldwide.

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".

Minimum Entry Requirements

English Language (EL1)	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following Science subjects:	Grades 1 - 6

Biology, Chemistry, Combined Science, Engineering Science, Physical Science, Physics, 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 87 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
ACS2002	Career Communication	2	2
ASI3011	Student Internship Programme	3	14

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1003	Applied Human Physiology	1	3
ABT1001	Cell Biology	1	4
ABT1002	Biomolecules	1	4
ACH1003	Organic Chemistry 1	1	5
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
AMA1003	Mathematics & Statistics 1	1	3
AMA1004	Mathematics & Statistics 2	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1003	Basic Microbiology	1	5
ABM2009	Fundamentals of Pathology	2	4
ABM2012	Biostatistics	2	3
ABM2013	Immunology	2	4
ABT2006	Analytical Biochemistry	2	5
ABT2007	Molecular Genetics	2	5
ABT2009	Plant Cell Technology	2	5
ABT2013	Molecular Biology	2	4
ABT2014	Metabolic Biochemistry	2	4
ABT2015	Mammalian Cell Technology	2	3
AMB2001	Applied Microbiology	2	5
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 Clusters to be offered by the course, and the subjects under these Clusters, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Translational Biomedical Research			
ABT3017	Molecular Diagnostic Development	3	4
ABT3018	OMICs & Recombinant Technology	3	4
ABT3019	Stem Cells & Tissue Engineering	3	3
Forensics and Bioanalytics			
AFR2001	Forensic Toxicology	2	3
APH2008	Biosafety	2	3
AFR3001	Forensic Biological, Chemical & Physical Analysis	3	5
Free Electives			
APH2006	Basic Pharmacology	2	4
ABM3003	Drug Development & Clinical Trials	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

CHEMICAL ENGINEERING

TP 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

Oil refinery giants, major manufacturers of petrochemicals and 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, petrochemicals, cosmetics, 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, and environmental technology so that you will be able operate and optimise manufacturing systems that produces the daily products that we use in our daily lives.

The extensive scope of this course will prepare you for higher education well. Besides local universities, students can enrol to the Singapore Institute of Technology for further studies. The University of New South Wales, University College of London, University of Adelaide and many top overseas universities also offer advanced standing to our graduates. You will have opportunities for local or overseas internships at multinational corporations and reputable institutions.

Career Opportunities

Trained to be versatile, you can conduct research or testing in laboratories, or involve in production and technical sales in a broad range of companies in various industries. Specifically, you can embark on a career in the chemical industry, the best-paying manufacturing industry in Singapore. Alternatively, you can consider a career in the prestigious pharmaceutical industry, which produces all kinds of medicines used by doctors worldwide to save lives.

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”.

Minimum Entry Requirements

English Language (EL1)	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following Science subjects:	Grades 1 - 6
Biology, Chemistry, Combined Science, Engineering Science, Physical Science, Physics, 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 85 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 128 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
ACS2002	Career Communication	2	2
ASI3016	Student Internship Programme	3	14

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACE1001	Mass & Energy Balance	1	5
ACE1002	Thermodynamics	1	4
ACH1003	Organic Chemistry 1	1	5
ACH1004	Organic Chemistry 2	1	4
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
ACH1006	Principles of Inorganic & Physical Chemistry 2	1	5
AMA1001	Applied Mathematics	1	4
AMA1002	Engineering Mathematics 1	1	5
ACE2002	Environmental Technology	2	4
ACE2007	Unit Operations 1	2	5
ACE2008	Unit Operations 2	2	5
ACE2009	Occupational Safety & Health	2	4
ACE2010	Process Control & Instrumentation	2	5
ACH2004	Principles of Instrumental Analysis	2	4
AMA2001	Engineering Mathematics 2	2	5
AMB2005	Introduction to Biochemistry & Microbiology	2	4
ACE3002	Chemical Reaction Engineering	3	4
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 Clusters to be offered by the course, and the subjects under these Clusters, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Applied Chemistry			
ACE3010	Materials & Nanotechnology	3	4
ACE3011	Water Chemistry	3	3
ACH3003	Applications of Instrumental Analysis	3	4
Chemical Processing			
ACE3004	Plant Safety & Loss Prevention	3	4
ACE3006	Petrochemical Technology	3	3
AEW3002	Industrial Wastewater Treatment	3	4
Pharmaceutical & Biologics Technology			
APH2008	Biosafety	2	3
APH3008	Biopharmaceutical Unit Operations	3	4
APH3010	Current Good Manufacturing Practices	3	3

Diploma Subjects – Elective Subjects

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

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
APH3004	Pharmaceutical Manufacturing Technology	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

PHARMACEUTICAL SCIENCE

Why are some medicines labelled as "poison"? How do they work to cure diseases? Join this field and learn about the effects of drugs on the human body. Gain the knowledge and skills required to design, analyse, manufacture and market new therapies for diseases.

Pharmaceuticals accounted for 85 percent of the biomedical science industry output for Singapore in 2010, which grew by another 10 percent for the whole year, hitting a total output of $19.7 billion. Biopharmaceutical manufacturing, with six new plants announced to be set up in Singapore worth $2.1 billion, is poised to be the next leading driver of the industry.

The course will train you to join the various sectors of the pharmaceutical and healthcare industries, and lay the foundation for you to become a specialist investigator in criminal forensics. You will learn specialised subjects related to disease, pharmaceutical legislation and marketing, drug action, chemical and biological analysis, and pharmaceutical manufacturing.

"We were impressed with the enthusiasm, commitment and positive attitude of TP's intern. The GMP and Pharmaceutical Legislation & Marketing modules covered in your course enabled her to blend into the company's GMP regulated environment easily. They also equipped her to participate actively in discussions and complete related assignments.

- Susan Chan
Regulatory Affairs Manager
Zuellig Pharma Pte Ltd

Furthermore, if you have an inclination towards analytical work, or have a passion for a career in forensics, you will have the opportunity to select elective subjects in our Forensics & Analytical Bioscience specialisation.

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. In 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.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 84 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

Career Opportunities

Graduates can work as pharmacy technicians in hospitals or community/ retail pharmacies, QA/QC technologists to conduct quality checks or process technologists to manufacture the drugs in the pharmaceutical industry. For the research-inclined, you can also join one of the research institutes or pharmaceutical companies to assist in research work on drug development and clinical trials, or conduct analytical work. You can also embark on a career in technical sales and marketing for pharmaceutical/ health products, or in forensics as an investigator or a laboratory technologist.

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".

Minimum Entry Requirements

English Language (EL1)	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following	
Science subjects:	Grades 1 - 6

Biology, Chemistry, Combined Science, Engineering Science, Physical Science, Physics, 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ACS2002	Career Communication	2	2
ASI3014	Student Internship Programme	3	14

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACH1003	Organic Chemistry 1	1	5
ACH1004	Organic Chemistry 2	1	4
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
AMA1003	Mathematics & Statistics 1	1	3
AMA1004	Mathematics & Statistics 2	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1003	Basic Microbiology	1	5
ABT1001	Cell Biology	1	4
ABT1002	Biomolecules	1	4
ABM1003	Applied Human Physiology	1	3
ABM2009	Fundamentals of Pathology	2	4
ACH2004	Principles of Instrumental Analysis	2	4
AMB2003	Pharmaceutical Microbiology	2	4
APH2005	Introduction to Pharmacotherapeutics	2	5
APH2006	Basic Pharmacology	2	4
APH2007	Pharmaceutical Legislation	2	3
APH3002	Current Good Manufacturing Practice	3	3
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3007	Pharmaceutical Analysis	3	4
AMP3012	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 Clusters to be offered by the course, and the subjects under these Clusters, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Pharmacy Practice			
ABM3003	Drug Development & Clinical Trials	3	4
APH3006	Good Dispensing Practice & Pharmacotherapy	3	4
APH3009	Pharmaceutical Marketing & Management	3	3
Pharmaceuticals and Biologics			
ACE2006	Pharmaceutical Unit Operations	2	4
APH2008	Biosafety	2	3
APH3008	Biopharmaceutical Unit Operations	3	4
Forensics and Bioanalytics			
AFR2001	Forensic Toxicology	2	3
APH2008	Biosafety	2	3
AFR3001	Forensic Biological, Chemical & Physical Analysis	3	5

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

VETERINARY TECHNOLOGY

"We are very happy with TP 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

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 fully licensed TP Animal Clinic and, through our unique collaboration with Mount Pleasant Veterinary Clinics and Animal Centre, 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, animals are the models 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.

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 education officer/ assistant, animal health inspection assistant or technical support 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.

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".

Minimum Entry Requirements

English Language (EL1)	Grades 1 - 7
Mathematics (E or A)	Grades 1 - 6
One of the following Science subjects:	Grades 1 - 6

Biology, Chemistry, Combined Science, Engineering Science, Physical Science, Physics, 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 91 credit units
Elective Subjects	: 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 134 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1003	Effective Communication	1	3
ACS1004	Scientific Communication	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
ACS2002	Career Communication	2	2
ASI3010	Student Internship Programme	3	14

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABT1002	Biomolecules	1	4
ACH1003	Organic Chemistry 1	1	5
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
AMA1005	Mathematics & Statistics	1	3
AMB1003	Basic Microbiology	1	5
AVT1001	Animal Anatomy & Physiology	1	5
AVT1002	Animal Nutrition, Care & Behaviour	1	4
AVT1003	Aquatic Nutrition, Feed & Formulation	1	3
AVT1004	Wildlife Ecology & Conservation	1	2
AVT1005	Developmental Biology	1	4
ABT2007	Molecular Genetics	2	5
ABT2014	Metabolic Biochemistry	2	4
AVT2006	Veterinary Immunology	2	3
AVT2007	Clinical Chemistry & Haematology	2	3
AVT2008	Animal Diseases & Diagnostics	2	5
AVT2009	Veterinary Pharmacology & Toxicology	2	3
AVT2010	Aquatic Care, Health & Diseases	2	4
AVT2011	Surgery, Anaesthesia & Veterinary Practices	2	5
AVT2012	Molecular and Cell Technology	2	4
AVT2013	Rehabilitative & Emergency Critical Care	2	3
AVT2014	Veterinary Pathology & Histological Techniques	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 Clusters to be offered by the course, and the subjects under these Clusters, are summarised below.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Veterinary			
AVT3004	Large Animal Science & Technology	3	3
AVT3005	Animal Breeding & Reproduction	3	3
AVT3009	Small Animal Science & Technology	3	4
Aquaculture			
AVT3006	Aquaculture Practices & Farm Management	3	4
AVT3007	Aquaculture Production, Systems & Engineering	3	4
AVT3008	Aquaculture Health & Product Quality	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary subjects.

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, pan-frying, 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.

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.

ABC2014 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.

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.

ABC2016 Food Service Revenue Management

This subject provides the essential knowledge to maximise food service revenue. Topics covered in cost management include purchasing, receiving, menu planning and menu engineering. Financial planning, assessing financial performances and yield management in food service will also be covered.

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.

ABC2019 Food Safety Application

This subject introduces the potential sources of foodborne hazards from farm to table. It also covers personal hygiene, hygiene aspects of food premises design, cleaning and sanitation, pest control in the food service environment, food hygiene legislation and standard operating procedures that will lead to food safety management system, Hazard Analysis and Critical Control Points (HACCP).

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.

ABC3004 Baking & Culinary Technology Application
This subject equips you with the knowledge and skills necessary to produce foods using various technologies such as sous vide, cook-chill/ cook-freeze, and frozen dough technologies. Engineering concepts on heat transfer, freezing, equipment design and selection, and packaging will be highlighted.

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.

ABC3007 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.

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.

ABM1003 Applied Human Physiology
This subject covers the knowledge of human physiology. It introduces common terms, concepts, fundamental procedures and applications used in physiology. Topics include circulatory, respiratory, hepatic, renal and endocrine physiology, and neurophysiology.

ABM2008 Histological Techniques
This subject covers the basic knowledge, principles and skills of histotechnology which include fixation, decalcification, tissue processing, microtomy, frozen sections and staining. It also covers basic diagnostic cytopathology.

ABM2009 Fundamentals of Pathology
This subject introduces the fundamental knowledge of general and systemic pathology. You will learn the nature and cause of diseases, disease mechanisms as well as structure and functional abnormalities of diseased organs and organ systems.

ABM2011 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.

ABM2012 Biostatistics
This subject covers the basics of biostatistics to apply statistics into clinical practice by converting clinical and laboratory experiences into quantitative statements. The topics covered include statistical tools to summarize data, test for differences between test groups, analyse rates and proportions, establish or validate confidence intervals, and test for trends. It also covers the application of biostatistics into different clinical cases.

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.

ABM2015 Patient Recruitment & Management
This subject covers the recruitment procedures and management of participants including children, healthy individuals, critically ill and elderly patients into clinical research projects or clinical trials. The topics covered include the recruitment procedures and protocols, effective communication skills and methods to obtain informed consent from patients or immediate family members. The management of these participants and proper conduct during the clinical research or trials will also be covered.

ABM3003 Drug Development & Clinical Trials
This subject introduces a comprehensive overview of drug discovery, drug development and clinical trial. It includes different approaches to drug design and discovery such as rational drug design and computer aided drug design etc. This subject also incorporates studies involved in the drug development process such as pharmacological and toxicological studies etc. Different phases of clinical trial are also covered. An outline of the roles of GLP, GMP and GCP from the time of drug discovery to the time it enters the market is also provided.

ABM3004 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.

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.

ABM3007 Research Methods & Bioethics
This subject covers the different aspects required in performing clinical research or clinical trials using case-studies. The topics covered include research governance, monitoring, audit and inspection process in clinical research, the awareness and use of Singapore Guideline for Good Clinical Practice, apply the techniques of obtaining informed consent when required, methods for safe-keeping of documents required in clinical trials and writing a research protocol for grant application. Basic ethical issues involved in conducting clinical research will also be covered. Other topics covered include roles of regulatory bodies in Singapore (HSA and MOH) and Institutional Review Board (IRB), purpose of adherence to ethical guidelines and procedures, and principles of research ethics.

ABM3008 Quality Management & Legislation
This subject covers the research quality management in clinical trials and an overview of the legal framework and regulatory requirements. The topics covered include the roles and responsibilities for the members in Institutional Review Boards to ensure quality assurance in clinical research, responsibilities of all members in the team to conduct quality clinical research, patients' rights protection, maintenance of patients' confidentiality, and ethical issues involving the sharing of information between research groups. Legislation such as Data Protection Act and Singapore Guidelines for Good Clinical Practice (SG-GCP) will also be covered.

ABT1001 Cell Biology
This subject covers the biology of cells of higher organisms: structure-function relationships of cellular membranes and internal organelles, cell cycle and cell division; transport mechanisms and cell communication, cell motility and the cytoskeleton and cell death. You will also acquire basic laboratory skills.

ABT1002 Biomolecules
This subject investigates the properties of carbohydrates, lipids and proteins, and their significance in biological systems. It aims to provide an overview of metabolism and emphasises the relationship between anabolism and catabolism, and their role in maintaining life.

ABT2006 Analytical Biochemistry
This subject focuses on the applications of analytical and biochemical techniques in the field of biotechnology. Topics covered include sample pre-treatment, separation techniques, spectrometry, chromatography, and the use of fluorochromes and radioisotopes in biochemical analysis.

ABT2007 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.

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, isolation of primary cell from tissue, working in a tissue culture laboratory and applications of animal cell culture in biotechnology such as hybridoma generation.

ABT3017 Molecular Diagnostic Development

This subject provides students with knowledge and skills required for the development of molecular diagnostic assays. The lessons will cover diagnostic platforms, techniques and instrumentation as well as assay development, assay criteria (eg. sensitivity, specificity, limits of detection etc) and assay validation. Students will also learn about the regulatory requirements for diagnostic assays and the pathways to commercialisation. An introduction to GMP will also be included.

ABT3018 OMICs & Recombinant Technology

This subject covers both theory and practice of recombinant DNA techniques as well as the techniques for global analysis and evaluation of the states/levels of deoxyribonucleic acid (DNA), ribonucleic acid (RNA) and protein in biological systems. It includes studies on the applications, potentials, present and future trends in genomics, transcriptomics and proteomics as well as an introduction to the application of bioinformatics.

ABT3019 Stem Cells & Tissue Engineering

This subject covers the current principles, practice, ethics and advances in stem cells and tissue-bioengineering as novel biological substitutes that restore, maintain or improve tissue function. This subject emphasises on pertinent aspects of the field, specifically, cells, stem cells, biomaterials and biochemical stimuli. Select application examples, specifically, bone, skin, kidney and vascular tissues, will be reviewed and discussed by addressing current technologies, challenges and emerging technologies.

ACE1001 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.

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.

ACE2002 Environmental Technology

This subject provides 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.

ACE2003 Industrial Chemical Processes

This subject covers selected chemical processes and operations. Topics include the making of petrochemical raw materials from various sources and studies on the manufacture and uses of industrial gases, adhesives, plastics and pharmaceutical products.

ACE2006 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 are also introduced.

ACE2007 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.

ACE2008 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.

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.

ACE2010 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.

ACE3002 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.

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.

ACE3005 Membrane Separation

This subject covers the fundamental principles of membrane separation operation and maintenance of membrane equipment and its applications for water treatment and wastewater reclamation. Topics include membrane separation principles, membrane types and system configurations, membrane fouling and control, and advanced membrane processes such as diffusion dialysis, electrodialysis and continuous deionisation, etc.

ACE3006 Petrochemical Technology

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.

ACE3010 Materials & Nanotechnology

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.

ACE3011 Water Chemistry

This subject covers the chemistry of water, including acid/base, precipitation and adsorption. Studying the chemistry of water helps students to understand and improve wastewater and water treatment systems to better protect the natural aquatic environment.

ACH1002 Organic & Biological Chemistry

This subject provides the basic concepts in organic chemistry as well as the constituents of biological systems and their properties and significance to biological science. Topics covered include organic chemistry, proteins and enzymes, carbohydrates and lipids.

ACH1003 Organic Chemistry 1

This subject provides the 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 on the applications of organic compounds and their derivatives, and their impact on the chemical related industries.

ACH1004 Organic Chemistry 2

This subject provides the additional concepts in organic chemistry with emphasis placed on reaction mechanisms. Topics covered include nucleophilic substitution and dehydrohalogenation of alkyl halides, structure and properties of derivatives of carboxylic acids, condensation reactions in carbonyl compounds, electrophilic aromatic substitution in aromatic hydrocarbons, phenol and aniline.

ACH1005 Principles of Inorganic & Physical Chemistry 1

This subject provides the basic theory and practical knowledge of inorganic and physical chemistry. Topics include fundamentals of chemistry, gas laws, atomic structure, chemical bonding, periodic table and periodicity, nomenclature, stoichiometry and equilibria concepts of a chemical reaction.

ACH1006 Principles of Inorganic & Physical Chemistry 2

This subject provides the additional theory and practical knowledge of inorganic and physical chemistry. Topics include ionic equilibria and calculations, chemical kinetics, chemistry of transition elements, electrochemistry and phase equilibria and phase diagrams.

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, UV-visible spectroscopy, gas chromatography, high performance liquid chromatography and atomic absorption spectroscopy.

ACH3003 Applications of Instrumental Analysis
This subject provides the additional knowledge of the principles and applications of some specialised instruments used in the analytical laboratory. Topics include atomic and molecular spectroscopic methods, sampling, data analysis, test method development, test method validation and technique development.

ACH3004 Laboratory Accreditation & Automation
This subject covers concepts of quality management in the areas of laboratory accreditation and automation. You will be exposed to SAC-SINGLAS accreditation in accordance with ISO/ IEC 17025 standard as well as various relevant standards. Topics on work flow and safety practices in laboratory design and applications of automation in the laboratory, with an emphasis on Laboratory Information Management System (LIMS), will also be covered.

ACS1003 Effective Communication
This subject is intended to prepare students to communicate effectively and persuasively in the workplace. They will acquire skills to manage their communication for cohesive interpersonal and work-related relationships, and learn how to deliver effective presentations. The topics include interpersonal and team skills, meeting skills, and oral presentation skills.

ACS1004 Scientific Communication
This subject is intended to prepare students to communicate scientific information through writing. The topics include information literacy and research, proposal/ report writing, and poster production.

ACS2002 Career Communication
This subject is intended to prepare students with effective job search skills such as writing resumes and cover letters, grooming and deportment and interview techniques. It also includes relevant business correspondence skills in the context of the applied science workplace.

AEW3001 Industrial Utilities
This subject covers the operation and maintenance of common utilities found in the manufacturing industries. Topics include ultrapure water production systems, boiler systems, industrial chillers and cooling towers.

AEW3002 Industrial Wastewater Treatment
This subject covers the classification of industrial wastewaters and the strategies for wastewater treatment to meet trade effluent standards and for resource recovery. Case studies on the unique characteristics and treatment methodology for industries like chemical, semiconductor, pharmaceutical, metal-plating, etc, will be covered.

AEW3003 Environmental Management System
This subject covers an integrated approach to environmental management through the consideration of the potential impact of human activities on the physical and biological environment. Topics include environmental impact assessment, ISO 14001 and environmental resource management.

AFR2001 Forensic Toxicology
This subject aims to develop your understanding of the practice of the application of toxicology from a legal perspective. It will teach you to carry out analytical toxicology tests on biological and non-biological samples. The subject will also cover the pathological observations associated with different drug toxicities, and the common analytical techniques available in the field of forensic toxicology. You will learn how to interpret the data acquired and formulate informed conclusions to appropriate case studies.

AFR3001 Forensic Biological, Chemical & Physical Analysis
This subject covers the application of bioanalytical, chemical and physical analytical techniques in forensics investigation. Topics include the evaluation of evidences, biological fluids, biomolecules produced by the body and skeletal remains with an emphasis on DNA profiling, finger-printing and blood, semen and saliva stains analysis. It also focuses on the use of instrumental techniques such as optical microscopy, microspectroscopy, molecular spectroscopy, chromatography, mass spectrometry and capillary electrophoresis in the analysis of alcohols, illicit drugs and poisons, glass, paints, fibres, explosions and firearms.

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. You will learn 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.

AFS2003 Food Preservation & Quality Assurance Project
This is a Problem-based Learning subject, integrating three content areas: Food Quality Control, Food Preservation and Food Microbiology.

AFS2007 Food Additives
This subject covers the main additives commonly used in food manufacture. These include emulsifiers, stabilizers, sweeteners, flavourings, colourings, acidulants, bulking agents, chelating agents and leavening agents. Food regulations on the use of additives will also be covered.

AFS2008 Applied Food Sanitation
This subject covers sanitation practices needed to ensure wholesome and safe food products. Topics covered include cleaning and sanitising, hygienic design aspects of equipment and food premise and water sanitation.

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 knowledge and techniques for developing new food products. Students learn to develop a food product through a project that covers product conceptualisation, sensory evaluation and product commercialisation.

AFS3007 Food Safety
This subject content provides an overview of food safety including supply chain systems and new technologies such as genetically modified foods.

AMA1001 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.

AMA1002 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.

AMA1003 Mathematics & Statistics 1
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 Mathematics & Statistics 2
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.

AMA1005 Mathematics & Statistics
This subject is designed to equip you with basic mathematical knowledge in calculus and statistics that are essential for the course of study. Topics covered include differentiation and integration, basic probability and distributions, basic statistics, sampling distribution, hypothesis testing, analysis of variance and chi-square testing.

AMA2001 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.

AMB1003 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.

AMB2001 Applied Microbiology
This subject has a theoretical and practical/ laboratory focus that allows you to build on the basic concepts in microbiology to its application in the fields of food, industry, medicine and environment.

AMB2003 Pharmaceutical Microbiology
This subject covers the importance of microorganisms in the manufacture of pharmaceutical products. It includes the applications of antimicrobial agents, sterilisation methods, aseptic dispensing and microbiological testing in the pharmaceutical industry. Laboratory skills for assessing product quality and safety, and the practice of quality assurance, current Good Manufacturing Practice (cGMP) and Good Laboratory Practice (GLP) are also emphasised.

AMB2005 Introduction to Biochemistry & Microbiology
This subject investigates the importance of fundamentals of biochemistry and microbiology. Topics covered for biochemistry include the classes of biomolecules, enzymes and major biochemical pathways like the krebs Cycle and glycolysis. Topics on microbiology include classification of microorganisms, laboratory microbial techniques and microbial nutrition.

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.

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.

AMP3009 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.

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.

AMP3013 Major Project (Biotechnology)
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.

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, 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 and their behaviour during food preparation. It also integrates the science of cooking with the selection, storage, purchase and preparation of fresh and processed foods available today. Careful attention is given to the preservation of major nutrients and palatability of prepared food. Learning experiences are built through basic demonstration of key principles and the application of such principles.

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.

ANT2004 Principles of Biochemistry & Physiology for Nutrition
This subject provides you with a basic knowledge of biochemistry and human physiology in relation to nutrition. It covers the principles of enzymatic reactions, transportation across the biological membrane and the workings of the immune system. The regulation of the integrative metabolic pathways involving glucose, lipid and protein, as well as their link to adenosine triphosphate (ATP) synthesis are covered in detail.

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. Basic knowledge of behavioural change models relating to program design and the delivery of health and nutrition messages in the public setting are included.

ANT3001 Nutrition in Disease
This subject focuses on the dietary principles and its relevance to the medical nutrition therapy of diet-related diseases. It covers the basic knowledge of the pathophysiology of some diet-related diseases. You will learn to integrate and apply the knowledge of food and nutrition sciences in the management of these diet-related disorders.

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.

APH2002 Pharmaceutical Chemistry
This subject examines the important functional group chemistry of pharmaceutical compounds and their structure-activity relationships. Concepts relevant to drug action and biological systems, and theories of drug-receptor interaction and receptor characterisation will be examined. An introduction to drug discovery and development will also be covered.

APH2004 Pharmaceutical Legislation & Marketing
This subject provides an overview of legislations affecting the pharmaceutical industry. Topics covered include Poisons Act, Misuse of Drugs Act, Medicine Act, Sale of Drugs Act, SAPI code of marketing practice and legal status of Traditional Chinese Medicine. It also covers basic marketing concepts, tools and techniques pertaining to the commercialisation of pharmaceutical products. You will also get an understanding of the pharmaceutical industry and healthcare services.

APH2005 Introduction to Pharmacotherapeutics
This subject covers the pharmacotherapeutic approaches in the management of ailments, with emphasis on basic pathophysiology and the role of medications and/or retail products and their use. It also covers basic over-the-counter dispensing and counselling practices and an appreciation of complementary medicine.

APH2006 Basic Pharmacology
This subject covers the basic principles and knowledge of pharmacology. Topics include an introduction to pharmacology, pharmacodynamics, pharmacokinetics, pharmacology of classes of drugs and an overview of toxicology.

APH2008 Biosafety
This subject covers the principles and practices of biosafety in the biopharmaceutical industry, hospitals, research and clinical laboratories. Students will learn good biosafety practices, and the management of hazards, risks, and threats associated with the handling of infected and non-infected organisms, microbes, biological materials and their derivatives.

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.

APH3005 Bioprocess Technology
This subject provides the fundamental principles of bioprocess technology and its relevance to the biotechnology industry. Topics include an overview of industrial bioprocesses, with an emphasis on fermentation and enzymes application, operations involved at various bioprocess stages, beginning from raw materials to finished products, basic concepts of bioprocess engineering, process control and instrumentation, bioreactor designs for culturing microorganisms, animal cells and plant cells.

APH3006 Good Dispensing Practice & Pharmacotherapy
This subject covers the fundamentals of good dispensing practice to enable you to read and interpret prescriptions, to prepare and pack medicine in accordance with prescriptions within the legal requirements of pharmacy law. It also covers the theory of common diseases and the use of drugs to treat these diseases. Patient counselling and OTC product counselling will also be taught.

APH3007 Pharmaceutical Analysis
This subject introduces the principles and applications of pharmacopeial analytical methods. It emphasises analytical instruments such as high performance liquid chromatography (HPLC), ultraviolet-visible spectrophotometry and infrared (IR) spectroscopy as well as their applications in the analysis of pharmaceuticals. Physical analytical methods such as particle size analysis, dissolution, disintegration and friability tests will also be included. Method development will be elaborated in relation to the optimisation of chromatographic performance. Method validation will be covered based on International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) guidelines.

APH3008 Biopharmaceutical Unit Operations
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. Consideration is also given to both analytical and process validation issues that are critical to successful manufacturing.

APH3010 Current Good Manufacturing Practices
This subject provides the fundamental knowledge and applications of cGMP in the pharmaceutical 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.

ASI3002 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 consciousness and written and oral presentation skills. Prior to the programme, students are required to undergo a six-week training programme at the Chemical Process Technology Centre.

ASI3006 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.

ASI3007 Student Internship Programme (Biotechnology)
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.

ASI3010 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.

ASI3012 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.

ASI3013 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.

ASI3014 Student Internship Programme (Pharmaceutical 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.

AVT1001 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.

AVT1002 Animal Nutrition, Care & Behaviour
This subject focuses on animal welfare and care as well as nutritional requirements 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.

AVT1003 Aquatic Nutrition, Feed & Formulation
This subject focuses on concepts and principles of aquatic nutrition, live and dry feeds, feed formulation techniques and principle of feed processing technology. Students would also learn about feed ingredients and feed additives for application in growth and development, health, physical performance and appearance. Nutrition for larviculture, grow-out and broodstock would also be covered.

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.

AVT1005 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 fertilization, 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.

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.

AVT2007 Clinical Chemistry & Haematology
This subject covers clinical chemistry and haematology in relation to veterinary applications. Topics include the processes and principles used to evaluate pancreatic and liver functions, kidney function and electrolytes, haematology and making of blood smears.

AVT2008 Animal Diseases & Diagnostics
This subject covers an introduction to animal diseases of veterinary significance. Topics include pathogenic agents, their modes of action, and the observed symptoms as well as veterinary microbiology. You will also acquire clinic diagnostic techniques such as skin scraping, faecal flotation and other techniques of relevance to working in veterinary clinics and animal hospitals.

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.

AVT2010 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.

AVT2011 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.

AVT2012 Molecular & Cell Technology
This subject focuses on molecular biology and cell culture techniques applicable for aquaculture and animal model research. Cell culture techniques important for in vitro diagnostic assays will also be covered.

AVT2013 Rehabilitative & Emergency Critical Care
This subject covers principles of animal physiotherapy and its applications including acupressure and hydrotherapy. Skills and knowledge in animal care and handling in emergency and rescue situations as well as veterinary nursing for animal patients in intensive care will also be covered.

AVT2014 Veterinary Pathology & Histological Techniques
This subject covers principles of pathology including etiology, cause and termination of disease other than fundamental knowledge on general and systemic pathology. You will also learn about structure and functional abnormalities of diseased organs and organ systems. Techniques on basic necropsy or post-mortem procedure, histochemical and histological techniques will be covered.

AVT3004 Large Animal Science & Technology
This subject focuses on care, animal behaviour, handling and husbandry requirements of large animals such as pigs, macaques and other 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.

AVT3005 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.

AVT3006 Aquaculture Practices & Farm Management
This subject focuses on good aquaculture practices and technology important for sustainable aquaculture. Water quality management, feed and feeding management, handling and care for hatchery, larviculture, grow-out and broodstock will be emphasised. You will receive hands-on training in farm operation and management.

AVT3007 Aquaculture Production, Systems & Engineering
This subject focuses on breeding strategies, reproduction fundamentals and techniques, different indoor and outdoor culture systems including recirculating aquaculture systems for the production of finfish, molluscs and crustaceans. You will learn basic engineering principles and system design applicable for aquaculture including biofiltration technology. Intensive and integrated aquaculture systems for sustainable aquaculture will also be covered in this hands-on and industry focused subject.

AVT3008 Aquaculture Health & Product Quality
This subject provides you with knowledge and skill based training in aquatic health management, harvest and post-harvest processes and food product quality and safety. The importance of good culture environment, aquatic health monitoring and also post-harvest technology on fishery product quality and safety will be emphasised. Innovative technology for enhancing aquatic health and better quality produce will be covered.

AVT3009 Small Animal Science & Technology
This subject provides you with knowledge and skill training in small animal care and handling, husbandry and laboratory techniques performed in research on small animal models such as rodents and rabbits as well as fish.

BMK3007 Principles of Entrepreneurship
This subject covers the key principles of entrepreneurship. The early part of the course examines the traits of successful entrepreneurs. You will learn how to identify business opportunities and be given the opportunity to conduct field research in order to identify, evaluate and select viable businesses. You will then prepare basic business plans.

BMK3012 Sales Management
Selling forms an integral part of the promotion component of the marketing mix. This subject provides 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 of sales management.

BRM1002 Principles of Retail Management
This subject introduces the basic principles and concepts in the field of retailing with particular emphasis on topics ranging from an introduction to basic retailing principles and practices, building and sustaining relationships in retailing to the key elements in the retail marketing mix.

BRM2006 Store Management
This subject introduces the basic principles of store management with particular emphasis on topics ranging from introduction to store management, human resource management to operational management.

LEA1001/1002/1003 Leadership: Essential Attributes & Practice (LEAP)
This is a Leadership & Character Education programme that comprises three core subjects - LEAP 1, 2 and 3. It seeks to cultivate in students the dispositions (i.e. attitude, skills and knowledge) towards the development of their leadership competencies. It is a leadership programme that enables students to develop leadership life-skills that embrace character as the core foundation for their leadership credibility and influence.

SCHOOL OF BUSINESS

Contents

The 11 courses offered by the School promise you an education and student life that is real, relevant and rewarding and with one clear objective: to prepare you for meaningful careers in a dynamic economy.

Real, because our courses are designed with critical input from prominent and respected industry partners.

The courses are aimed to equip you with up-to-date knowledge and life skills. More importantly, they come alive through our strategic collaboration with the industry. You will get opportunities to work on real-life projects of many renowned local and global companies. Through our Student Internship Programme, you will gain first-hand work experience which allows you to apply the knowledge and skills that you would have learned in the classroom. You may complete your internship either locally or overseas.

Relevant, as our industry-oriented curricula ensure that the knowledge and skills that you acquire put you in a good position to be a productive member of the workforce from day one.

Our progressive learning methods, carried out through tutorials, group projects, e-learning and Problem-based Learning, enable the development of essential life skills. Under the guidance of our professional and experienced staff, you will hone your problem-solving, creative thinking and communication skills. Our goal is to make you agile, resourceful and able to perform well in changing business conditions, or in your further studies

Rewarding, because we offer you a rich and fulfilling student experience by providing a well-rounded education with strong emphasis on co-curricular activities and enrichment programmes.

These are conducted on-campus, out-of-campus, locally, as well as 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.

The School of Business firmly believes in a practical orientation for all its courses. To better prepare you for the world of work, the school has a wide range of laboratories and teaching facilities that allow you to undergo hands-on training.

Centres of Excellence

Accounting & Finance Hub @ TP

The A&F Hub is equipped with business and accounting software for our students to be trained in helping businesses automate accounting transactions, keep track of financial performances and streamline business processes. Through hands-on learning of Reuters, our students can also explore the exciting financial markets and the real trading environment with its online share prices, interest rates, bond, currency and derivative prices and access 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 gives students hands-on training in international 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 the latest video conferencing facilities which allow students to communicate with industry partners from around the world.

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 post-production facilities for online and offline editing.

Centre for Logistics & Operations Management
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.

The 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 Brand Management and Integrated Marketing Communications 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.

The Temasek Culinary Academy
This training complex houses modern kitchens as well as two attractive and contemporary dining outlets: "Sugarloaf" which is a quick-service café and "Top Table" which is a full-service restaurant. The kitchens comprise the Skills kitchen, Pastry and Bakery, Asian and Western kitchens, and a garde manger (cold kitchen). These training facilities will allow Culinary & Catering Management students to hone their skills in food preparation and food service. It is an ideal platform to train them in the art of providing excellent service.

Business Technology Labs
The labs are designed to support the teaching of the latest information technologies to students. They allow staff and students to explore application software, programming languages, and emerging technologies in a structured manner. These labs are used for student research, projects and presentations.

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 room set-up.

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.

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.

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.

BIT Studio
The centre offers a training platform for students to learn the complexity of using state-of-the-art technology in electronic business development. It aims to provide a real-life project development environment for students and staff to work on electronic business projects. It can also be used as a launch pad for e-commerce projects or for students to work on proof-of-concepts with industry partners.

Business IT Learning Space
The twin Silicon Studios are equipped with state-of-the-art multimedia facilities to enable students to do project research, make presentations and engage in collaborative learning. Besides workstations and an intelligent classroom management system, there are network points for students to access the network and other IT facilities using notebooks.

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, student clubhouse, 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.

ACCOUNTING & FINANCE

"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, CPA Firm
Foo Kon Tan Grant Thornton

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 accounting and finance sectors. Besides the opportunities for you to develop problem-solving, communication and service skills, you will experience hands-on learning through industry and real-life projects, and the application of financial databases and accounting software widely used in the industry.

Furthermore, you get to choose your preferred Accounting or Banking and Investment specialisation and take cross-disciplinary subjects 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 14-week internship with one of our strategic industry partners, which include the Big 4 or large local accounting firms, banks and financial institutions, and many reputable multi-national companies.

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.

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”.

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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 22 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Elective Subjects	: min 16 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3011	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1003	Financial Accounting 1	1	4
BAF1004	Financial Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1007	Business Office Applications	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BHT1018	Etiquette of Business & Service Knowledge	1	1
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
BAF2002	Business Finance	2	4
BAF2003	Computerised Accounting System	2	4
BAF2004	Cost & Management Accounting 1	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
BAF2019	Corporate Reporting & Audit	2	4
BLM2005	Legal Aspects of Business	2	4
BAF3008	Financial Analysis	3	4

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Accounting/Audit/Tax Elective Cluster			
BAF3014	Practice of Taxation	3	4
BAF3019	Advanced Accounting	3	4
BAF3020	Audit Practice	3	4
Banking/Investment Elective Cluster			
BAF3003	Bank Treasury Management*	3	4
BAF3007	Credit Administration & Control*	3	4
BAF3013	Personal Financial Planning	3	4
BAF3016	Security Analysis & Portfolio Management	3	4
**select one*			
Diploma Free Elective Subjects			
BLO1002	Business Calculus	1	4
BAF3006	Consumer Banking	3	4
BAF3021	Risk Management	3	4
BLM3009	Company Law for Business	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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 personal strengths, aptitude, interests and career aspirations. During this time, you can explore the career opportunities and course requirements of the three diplomas before choosing one course.

Course Option for Junior and Senior Years

Towards the end of your first year, you are given the choice to 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:

- Principles of Management
- Writing & Presentation Skills
- Business Accounting 1
- Business Accounting 2
- Leadership: Essential Attributes & Practice 1 (LEAP1)
- Organisational Behaviour
- Microeconomics
- Macroeconomics
- Computer Systems & Applications
- Marketing Fundamentals
- Business Statistics

BUSINESS

"The graduates of this course are highly competent and adaptable; and given the training they have received at Temasek Polytechnic, I am confident that they are geared for success in the business world of today and tomorrow.

- Dhirendra Shantilal
Board Director & Head, Asia Pacific
Fircroft Group

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 (TP branch), Business Enterprise Centre, as well as the Student Internship Programme. Our students are given abundant 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. Subjects covered include Management, Business Accounting, Economics, Business Statistics, Marketing, Computing, Human Resource Management, Finance, Managerial Accounting, Entrepreneurship, International Business, Communication and Law.

In the latter half of your course, you will have specialisations in two out of eight business elective clusters: International Business, Tourism & Leisure Business, Finance & Investment, Human Resource Management, Marketing, Corporate Communication, Banking and Entrepreneurship. You can also select non-business Cross-Disciplinary Subjects that interest you.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 69 credit units
Elective Subjects	: min 28 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

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 a wide range of 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 more than 60 reputable local and overseas universities.

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".

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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3002	Student Internship Programme	3	8

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1001	Business Accounting 1	1	4
BAF1002	Business Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1001	Computer Systems & Applications	1	4
BBT1002	Managing Business Systems	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
BRM1005	Marketing Fundamentals	1	4
BAF2002	Business Finance	2	4
BBS2001	Human Resource Management	2	4
BLM2005	Legal Aspects of Business	2	4
BAF3011	Managerial Accounting 1	3	4
BAF3012	Managerial Accounting 2	3	4
BMK3005	International Business	3	4
BMK3006	Practice of Entrepreneurship	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
International Business Elective Cluster			
BAF2007	International Finance	2	4
BBS3007	Issues in Global Management	3	4
BLO3015	Global Trade & Singapore Logistics	3	4
BRM3008	International Marketing & Retailing	3	4
Tourism & Leisure Business Elective Cluster			
BHT2003	Club & Resort Business	2	4
BHT2005	Event Management	2	4
BHT2010	Special Interest Tourism	2	4
BHT2012	Travel & Leisure Business	2	4
Finance & Investment Elective Cluster			
BAF2006	Fundamentals of Investment	2	4
BAF3008	Financial Analysis	3	4
BAF3013	Personal Financial Planning	3	4
BAF3016	Security Analysis & Portfolio Management	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Human Resource Management Elective Cluster			
BBS2002	Recruitment & Human Resource Administration	2	4
BBS2003	Management of Employee Relations	2	4
BBS3001	Human Resource Development	3	4
BBS3002	Performance & Compensation Management	3	4
Marketing Elective Cluster			
BMK2001	Advertising & Promotion	2	4
BMK2002	Consumer Behaviour	2	4
BMK2003	Customer Relationship Management	2	4
BMK3012	Sales & Account Management	3	4
Corporate Communication Elective Cluster			
BBS2006	Principles of Corporate Communication	2	4
BBS2007	Corporate Journalism & Publications	2	4
BBS3003	Corporate Events Management	3	4
BBS3004	Media Relations & News Dissemination	3	4
Banking Elective Cluster			
BAF2007	International Finance	2	4
BAF3003	Bank Treasury Management	3	4
BAF3006	Consumer Banking	3	4
BAF3007	Credit Administration & Control	3	4
Entrepreneurship Elective Cluster			
BBS2008	Franchising Business	2	4
BBS2009	Managing Small & Medium Enterprises	2	4
BBS3005	Product Development & Innovation	3	4
BBS3006	Strategic Entrepreneurship	3	4
Business Calculus Elective			
BLO1002	Business Calculus	1	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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.

"The logistics industry is growing dramatically as businesses seek every edge to be competitive and move their products to market faster and with more efficiency than ever before. This is a growing field and trained logistics and supply chain practitioners can expect excellent employment opportunities and a challenging, vibrant work environment as logisticians help to create the new processes and methodologies that will drive 21st century global companies to success.

- Desmond Chan
Managing Director
South Asia
Menlo Worldwide Asia Pacific Pte Ltd

The course provides you with a strong business foundation in the Freshman year. In the Junior and Senior years, you will be equipped with business knowledge on how companies manage their physical products and services through subjects like Management Science, Management Accounting & Finance, Operations Management, Materials Management, Quality Management and Purchasing Principles & Practice.

Specialised knowledge in logistics will be introduced through subjects like Logistics & Supply Chain Management, Transport Management and Distribution Centre Management. You will be offered three areas of focus in the Senior year where you can choose from a pool of electives, such as Cold Chain Management and Bio-Chemical Logistics.

In order to draw on the knowledge and skills you have acquired from the course and be exposed to the reality of the working world, you will be required to participate in the Student Internship Programme as well as undertake a major industry-based project. The course emphasises a practical approach that provides you with a good foundation in business studies together with an in-depth knowledge of logistics. You will also develop team-building, problem-solving and human relations skills.

Career Opportunities

You can look forward to a fruitful and challenging career in the logistics industry or in the operations function of many organisations. There are many career opportunities in the service and manufacturing industries for graduates such as purchasing officer, inventory and production planner, customer service officer, warehousing executive, freight forwarding executive, shipping administrator, logistics executive and supply chain analyst.

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".

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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 89 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3007	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1001	Business Accounting 1	1	4
BAF1002	Business Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1001	Computer Systems & Applications	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
BRM1005	Marketing Fundamentals	1	4
BAF2016	Management Accounting & Finance	2	4
BLO2002	Logistics & Supply Chain Management	2	4
BLO2003	Management Science	2	4
BLO2004	Operations Management	2	4
BLO2005	Purchasing Principles & Practice	2	4
BLO2010	Distribution Centre Management	2	4
BLO2011	Materials Management	2	4
BLO2012	Quality Management	2	4
BLO3003	Logistics Planning & Control Systems	3	4
BLO3008	Transport Management	3	4
BLO3009	Logistics & Operations Measurement	3	4
BMP3007	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBT1002	Managing Business Systems	1	4
BLO1002	Business Calculus	1	4
BBS2001	Human Resource Management	2	4
BMK2002	Consumer Behaviour	2	4
BLO3012	Logistics Service Management	3	4
Supply Chain Focus			
BLO3013	Advanced Supply Chain Management	3	4
BLO3014	Supply Chain Simulation & Modelling	3	4
International Logistics Focus			
BLO3015	Global Trade & Singapore Logistics	3	4
BLO3016	International Freight Practices	3	4
Specialised Logistics Focus			
BLO3011	Bio-Chemical Logistics	3	4
BLO3017	Cold Chain Management	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

MARKETING

BrandStory welcomes marketing interns from TP every year, and even as my team and I expose them to the exciting and complex world of branding, we are also learning from them, being part of the current net-savvy generation. I am impressed with their positive work attitude, high creative energy and infectious enthusiasm.

- Reene Ho-Phang
Managing Director
BrandStory Inc

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 research, consumer behaviour, new media marketing and customer relationship management. The Senior-year curriculum focuses on strategic marketing, brand management, integrated marketing communications, global marketing and public relations 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.

Career Opportunities

This course opens the door to a varied range of opportunities for you. 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, resort marketing, public relations, trade and consumer sales and marketing.

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”.

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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 93 credit units
Elective Subjects	: min 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3010	Student Internship Programme	3	8

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1001	Business Accounting 1	1	4
BAF1002	Business Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1001	Computer Systems & Applications	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
BRM1002	Principles of Retail Management	1	4
BRM1005	Marketing Fundamentals	1	4
BMK2001	Advertising & Promotion	2	4
BMK2002	Consumer Behaviour	2	4
BMK2003	Customer Relationship Management	2	4
BMK2004	Financial Aspects of Marketing	2	4
BMK2005	Marketing Research	2	4
BMK2007	New Media Marketing	2	4
BMK2014	Creative Campaign Project	2	4
BMK3003	Global Marketing	3	4
BMK3004	Strategic Marketing	3	4
BMK3008	Public Relations	3	4
BMK3011	Brand Management	3	4
BMK3012	Sales & Account Management	3	4
BMK3013	Integrated Marketing Communications	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BMK3010	Services Marketing	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BUSINESS INFORMATION TECHNOLOGY

"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 will enable students to help enterprises address real-world business challenges, thus equipping them with the critical skills for careers and opportunities.

- Kelly Tan
Managing Director
SAP Singapore

Jointly offered by Temasek Polytechnic School of Business and Temasek Polytechnic School of Informatics & IT, this course opens the doors for students who envision themselves to be the catalyst of business growth through the use of IT.

This course equips you with business concepts and the skills to apply IT knowledge to business domains. You will take business subjects such as Accounting, Management, Economics and Marketing. Subjects such as eBusiness Management and Open Technology & Business Systems will train you in the application of technological solutions for businesses. Through subjects like Enterprise Resource Management and Data Mining, you will learn to harness technology to add value to business verticals such as Financials and Supply Chains.

In your Junior and Senior years, you will be able to choose and focus on one of six domains, namely Marketing, Business Management, Tourism & Leisure Business, Technopreneurship, Enterprise Resource Planning and Logistics. Specific domain knowledge gives you a depth of view, opens up your mind and enhances your employment prospects. In addition, your breadth of knowledge will be provided by specially selected business subjects from the School of Business as well as IT subjects from the School of IIT.

The course emphasises experiential learning. Through projects, role-play, business simulations and a 16-week internship programme, you will be working with business veterans and gaining real-world working experience even before graduation! You may even find the opportunity to do your internship overseas, performing various roles such as software development, business analysis and computer games development.

Career Opportunities

You will be adept at 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.

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”.

Minimum Entry Requirements

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, 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).

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

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 22 credit units
Diploma Subjects	
Core Subjects	: 80 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 123 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3003	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1001	Business Accounting 1	1	4
BAF1002	Business Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1005	Computer Technology & Office Systems	1	5
BBT1006	E-Business Management	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
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
BMP3003	Major Project	3	8

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BAF2016	Management Accounting & Finance	2	4
BBS2001	Human Resource Management	2	4
BBS2009	Managing Small & Medium Enterprises	2	4
BMK2001	Advertising & Promotion	2	4
BMK2003	Customer Relationship Management	2	4
BHT2005	Event Management	2	4
BHT2012	Travel & Leisure Business	2	4
BLM2007	Legal Aspects of IT	2	4
BLO3015	Global Trade & Singapore Logistics	2	4
BBT3006	Business Strategies in IT	3	4
BBT3007	Outsourcing Management	3	4
BBT3008	Business Intelligence	3	4
BBT3009	Enterprise Applications	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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 new 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 and design skills to be effective in your chosen fields. You could also explore a career in other media-related businesses such as public relations, marketing communications and entertainment.

"When requesting for an intern for our radio station, we are particularly drawn to the students of this course. Our collaboration with CMM continues to be strong and we have discovered that every student is dynamic, well-informed and eager to learn. Most importantly, they are not afraid of hard work. Clearly they understand how the radio industry works and are able to adapt to the work culture with ease.

- Isadhora Mohamed
Senior Programme Director
WARNA 94.2 FM
MediaCorp Private Limited

The course structure places equal emphasis on both the traditional and essential aspects of the media business and the latest communications technology. You will focus on the fundamentals of mass media and get a solid grounding in journalism in your Freshman year. Juniors will be comprehensively trained in the fundamentals of audio, radio, video and television production in the second year of the course, and will get to choose diploma electives as well. 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 MTV, MediaCorp and Singapore Press Holdings. In the second semester, you will work on an industry-driven major project in one of these chosen areas – Print, Broadcast or Marketing Communications.

Career Opportunities

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

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".

Minimum Entry Requirements

English Language (EL1) * Grades 1 - 3
Mathematics (E or A) Grades 1 - 7
Any one of the following subjects: Grades 1 - 6
Art/ Art & Design, Business Studies, Chinese, Combined Humanities, Commerce/Commercial Studies, Creative 3D Animation, Design & Technology, Economics, Food & Nutrition, Geography, Higher Art, Higher Chinese, Higher Malay, Higher Music, Higher Tamil, History, Introduction to Enterprise Development, Literature in English/Chinese/Malay/Tamil, Malay, Media Studies (English Language), Media Studies (Chinese Language), Music, Principles of Accounts, Tamil.

Any two other subjects Grades 1 - 6

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 27 credit units
Diploma Subjects	
Core Subjects	: 79 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 123 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BCM2017	Professional Communication	2	4
BSI3004	Student Internship Programme	3	16

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCM1004	Journalism 1: Newswriting	1	4
BCM1005	Journalism 2: Feature writing	1	4
BCM1006	Media & Society	1	4
BCM1007	Media Management Principles	1	4
BCM1009	Photography	1	5
BCM1012	Essentials of Graphic Design	1	5
BCM1013	Marketing & Corporate Communications	1	4
BCM1014	Media Scriptwriting	1	4
BMK1001	Basics of Entrepreneurship	1	1
BCM2007	Introduction to Audio Production	2	5
BCM2008	Multi-Camera Studio Production	2	5
BCM2010	Radio Studio Production	2	5
BCM2011	Single Camera Production	2	5
BCM2014	Digital Media Production	2	4
BCM2018	Media Research	2	4
BCM3010	Web & Digital Media Management	3	4
BCM3011	Major Project	3	8
BLM3016	Media Law	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BCM2002	Basic Sub-editing	2	4
BCM2003	Broadcast Performance	2	4
BCM2006	Film Theory & Criticism	2	4
BCM2015	Chinese Media Writing	2	4
BCM2016	Magazine Production	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

CULINARY & CATERING MANAGEMENT

TP nurtures talent for the future by equipping students with knowledge beyond mere concepts and practices in food and beverage. This is a fitting testimony to TP's outstanding instructors, who mentor students with dedication, forward-thinking and passion.

- Matthew Nonis
Group Training Manager
Les Amis Group

The culinary and catering industry in Singapore and the region is set to grow in the next decade and beyond. Supporting facilities and services such as restaurants, hotels, as well as events and conventions, will be in great demand. Conceived against this exciting backdrop, this course will propel you into a rewarding and creative world with exciting career opportunities.

The course focuses on giving you a thorough appreciation of ideas ranging from the management of the overall customer experience in restaurants to the complex and integrated processes found in catering establishments. There will be ample opportunities to allow your passion for the culinary arts to flourish. The course will give you the knowledge and skills sets to enable you to operate and manage food and beverage (F&B) outlets or run your very own restaurant.

You will learn about food product knowledge, wine and beverage, basic business skills and develop an understanding of the culinary and catering industries. The course also covers more advanced areas of study such as revenue management and marketing for the restaurant and catering industries. Your culinary and service skills will be honed through hands-on practice and projects in our modern kitchens and restaurants on the campus. You will also undergo a 20-week internship in your Senior year in a commercial environment.

Together with our experienced lecturers and instructors, award-winning chefs and through our partnership with the Culinary Institute of America, you will be trained by some of the best in the industry.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 22 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 3 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

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.

Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results, as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. 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".

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.

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 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.

** 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3012	Student Internship Programme	3	13

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1003	Business Computing Skills	1	4
BCC1001	Food Science & Product Knowledge	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BMK1001	Basics of Entrepreneurship	1	1
BAF2001	Accounting for Hospitality & Tourism	2	4
BCC2001	Wine & Beverage	2	4
BCC2002	Food Safety & Hygiene	2	2
BCC2003	Food & Beverage Operations	2	4
BCC2004	Culinary Practicum (Western, Asian, Baking & Pastry, Garde Manger)	2	20
BHT2014	Principles of Marketing for Hospitality & Tourism	2	4
BHT2022	Business Etiquette & Service Excellence	2	3
BCC3001	Service Practicum	3	8
BCC3002	Catering Management	3	4
BCC3003	Business Revenue Management	3	3
BCC3005	Marketing for Restaurant & Catering	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BLR2004	Introduction to Gaming Operations	2	3
BHT3002	E-business in Hospitality & Tourism	3	4
BHT3014	Hotel Revenue Management	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

HOSPITALITY & TOURISM MANAGEMENT

Singapore's hospitality and tourism industries have experienced exceptional growth in the past year 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.

"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 has been a valued partner in developing such talent and I am confident that TP will continue to equip future talent with industry-relevant skills and innovative qualities to meet the challenges of our dynamic tourism sector.

- Lionel Yeo
Chief Executive
Singapore Tourism Board

You will enjoy 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 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 attachment to a company which you will be guided to select. This final destination in your learning journey ensures that you are more than well-prepared to assimilate into the work-life of your chosen hospitality or tourism career.

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.

Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. 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".

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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 28 credit units
Diploma Subjects	
Core Subjects	: 82 credit units
Elective Subjects	: min 6 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3014	Student Internship Programme	3	16

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1003	Business Computing Skills	1	4
BCC1002	Fundamentals of Food & Beverage	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BHT1019	Travel Geography	1	2
BLO1004	Research for Hospitality & Tourism	1	4
BMK1001	Basics of Entrepreneurship	1	1
BAF2001	Accounting for Hospitality & Tourism	2	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
BLR2004	Introduction to Gaming Operations	2	3
BLR2005	Tourism Culture & Society	2	3
BHT2024	e-business in Hospitality & Tourism	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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.

"With the best of the best setting up shop in Singapore, paralegals with specialist skills, particularly in languages, will likely be in great demand.

- Senior Counsel Davinder Singh
Chief Executive Officer
Drew & Napier LLC

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 working environment of the legal profession.

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

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, 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.

Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. 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".

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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: min 6 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1003	Legal Communication Skills 1	1	5
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BCS2001	Legal Communication Skills 2	2	4
BSI3006	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1001	Business Accounting 1	1	4
BAF1002	Business Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1001	Computer Systems & Applications	1	4
BBT1002	Managing Business Systems	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLM1001	Criminal Law	1	4
BLM1002	Law of Tort	1	4
BLM1003	Legal Systems & Methods 1	1	4
BLM1004	Legal Systems & Methods 2	1	4
BMK1001	Basics of Entrepreneurship	1	1
BLM2001	Conveyancing Law & Procedure	2	6
BLM2002	Criminal Procedure	2	4
BLM2003	Family Law	2	4
BLM2004	Law of Contract	2	4
BLM3005	Company Law	2	4
BAF3004	Company & Partnership Accounts	3	3
BLM3003	Civil Procedure	3	6
BLM3006	Corporate Governance & Compliance	3	3
BLM3008	Intellectual Property	3	4
BLM3011	Management of Law Office & Court Technology	3	5
BLM3013	Trusts, Wills & Probate	3	3

Diploma Subjects - Elective Subjects (students to choose TWO subjects)

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLM3001	Advanced Civil Procedure	3	3
BLM3002	Arbitration & Alternative Dispute Resolution	3	3
BLM3004	Commercial Transactions	3	3
BLM3007	Insurance Law & Practice	3	3
BLM3010	Law of Banking & Finance	3	3
BLM3012	Shipping Law & Practice	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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 at a self-selected company either locally or overseas, in some of the best known leisure and events companies in the world.

"The new emphasis on leisure and events is timely, as these areas of business have grown exponentially over the last 10 years in the Asia Pacific region. The course content appears to be practical and should prove useful for graduates who plan to join the Meetings, Incentives, Conferences and Exhibitions (MICE) industry.

- Benedict Soh
Executive Chairman
Kingsmen Creatives Ltd

Our curriculum strongly emphasises two major segments of the tourism industry: the leisure business and meetings 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.

Career Opportunities

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

Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results, as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. 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".

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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 83 credit units
Elective Subjects	: min 6 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 123 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3015	Student Internship Programme	3	13

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1003	Computing Skills	1	4
BCC1002	Fundamentals of Food & Beverage	1	4
BEC1001	Macroeconomics	1	4
BEC1002	Macroeconomics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BLO1004	Research for Hospitality & Tourism Management	1	4
BMK1001	Basics of Entrepreneurship	1	1
BAF2001	Accounting for Hospitality & Tourism	2	4
BHT2008	Business Etiquette & Service Excellence	2	4
BHT2009	Service Skills Methodology	2	4
BHT2014	Principles of Marketing for Hospitality & Tourism	2	4
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
BLR3002	Resort Operations & Management	3	4
BLR3004	Club Management	3	4
BLR3005	Cruise Business	3	4
BLR3008	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
BLR2004	Introduction to Gaming Operations	2	3
BLR2005	Tourism Culture & Society	2	3
BHT3002	E-business in Hospitality & Tourism	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

RETAIL MANAGEMENT

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.

- Sherri Lim
Vice-President
Human Resource & TANGS Store Operations
C. K. Tang Limited

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, International Marketing & Retailing, Retail Informatics and Luxury Brand Management.

You will engage in practical retail shop floor activities in our simulated retail store, 1st Avenue. This 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.

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.

Application

Apply during the Joint Admissions Exercise following the release of the GCE O Level results as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. 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 Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: min 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 128 credit units

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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1007	Writing & Presentation Skills	1	4
BCS1008	Meeting Skills & Communication Etiquette	1	3
BCS1009	Business Correspondence & Job Search Skills	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
BSI3010	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBS1001	Principles of Management	1	4
BBT1001	Computer Systems & Applications	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
BRM1001	Retail Accounting 1	1	4
BRM1002	Principles of Retail Management	1	4
BRM1003	Retail Accounting 2	1	4
BRM1005	Marketing Fundamentals	1	4
BRM2002	Retail Visual Merchandising	2	4
BRM2006	Store Management	2	4
BRM2009	Retail Buying Behaviour	2	4
BRM2110	Financial Aspects in Retail Management	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
BRM2117	Service Leadership	2	2
BRM3006	Retail Promotion & Branding	3	4
BRM3007	Retail Informatics	3	4
BRM3008	International Marketing & Retailing	3	4
BRM3112	Strategic Retailing	3	4
BRM3115	Retail Event Management	3	3
BRM3116	Retail Business Development	3	4
BRM3117	Mall Management	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BRM3114	Luxury Brand Management	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

Subject Synopses

BAF1001 Business Accounting 1
This subject provides an understanding of basic accounting concepts, the accounting conventions, and their applications in businesses. It covers the general framework of the accounting process, including the double entry system, the measurement of income, assets, liabilities and owner's equity, and the preparation of income statement and balance sheet for sole-proprietorships.

BAF1002 Business Accounting 2
This subject provides an understanding of various types of organisations, and skills to prepare and interpret final accounts of these organisations. It also covers preparation of the cash flow statement, accounting and control of non-current assets, cash and inventory.

BAF1003 Financial Accounting 1
This subject equips you with the principles of accounting, the analysis and recording of business transactions using the double-entry system, the accounting process and accounting for goods & services tax. You will learn how to prepare financial statements within the framework of accounting assumptions and principles.

BAF1004 Financial Accounting 2
This subject builds on the foundation laid in Financial Accounting 1. It focuses on business profit determination under the accrual accounting system, the accounting system used to account for and control various business assets namely non-current assets, cash and inventory. It will also equip you with the concepts of accounting for partnerships.

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.

BAF1009 Fundamentals of Accounting
This subject covers double-entry bookkeeping, profit determination and contents of financial reports for a sole-proprietorship business. Students will have opportunities through various learning methods to apply the knowledge to real world situations.

BAF2001 Accounting for Hospitality & Tourism
This subject explains and illustrates the accounting process and practices in hospitality and tourism establishments. You will learn double-entry bookkeeping and the preparation of financial statements.

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.

BAF2003 Computerised Accounting System
This subject prepares you to be a competent and effective user of a computer-based accounting information system. Areas covered will include transaction flows, information processing and controls in accounting systems. You will also be trained in accounting software widely used in the industry.

BAF2004 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.

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.

BAF2009 Management Accounting & Finance for Hospitality & Tourism
This subject covers the basic concepts of cost and financial management and introduces the use of different types of management tools for management decision-making within the context of a hospitality and tourism organisation. Topics include ratio analysis, cost-volume-profit analysis, time value of money and budgeting.

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 & equipment, provisions, contingencies and events after reporting period. A framework for preparing a set of statutory financial statements will also be discussed.

BAF2012 Introduction to Business Finance
This subject provides a general overview of the balance sheet and profit and loss statement of the company. It also gives 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.

BAF2016 Management Accounting & Finance
This subject covers the general framework of the financial and cost management processes. The subject focuses on the management of financial resources with topics such as financial analysis, sources of financing and capital investment evaluation. It also deals with basic cost concepts and how accounting information is used for costing, pricing and budgeting.

BAF2018 Fundamentals of Taxation
This subject gives 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.

BAF2019 Corporate Reporting & Audit
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. You will also learn the fundamental concepts of auditing within the audit framework, and the principles of corporate governance and professional ethics.

BAF2021 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.

BAF3003 Bank Treasury Management
This subject provides an overview of a bank's operation in the treasury department. You will be introduced to various types of money market, foreign exchange instruments and their derivatives.

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.

BAF3006 Consumer Banking
This subject provides an insight into the basic types of consumer banking services available in Singapore, and how these services are operated and marketed. Cases will be introduced to illustrate how these personal financial services are marketed.

BAF3007 Credit Administration & Control
This subject enables you to become familiar with and understand the supportive functions of the credit administration department. It provides a working knowledge of the importance of good control systems in the credit risk and management department with the primary objective of effectively monitoring the quality of loan portfolio.

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.

BAF3011 Managerial Accounting 1
This subject provides an insight into how accounting information is used as a tool by managers for making planning and control decisions. It emphasises the analysis and interpretation of cost information in management decisions and deals with the effect of management decisions on these costs. Topics include product costing, activity-based costing, analysis of segments and cost-volume-profit analysis.

BAF3012 Managerial Accounting 2
This subject introduces you to the tools and techniques used by managers in decision-making, control of operations and evaluation of performance. It emphasises the use of accounting information in managing an organisation. Topics include relevant costing, pricing, budgeting and performance measurements.

BAF3013 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.

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 teaches you how to apply the financial tools and techniques to make decisions in selecting a portfolio of securities that meet the 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.

BAF3020 Audit Practice

This subject 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.

BBS1001 Principles of Management

This subject provides 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.

BBS1002 Organisational Behaviour

This subject provides an insight into the key determinants of individual and group behaviour in an organisation. You will also learn how to use these concepts to improve your personal, interpersonal and group interaction skills.

BBS2001 Human Resource Management

This subject emphasises the role of line managers/ supervisors in maximising organisational and employee performance through effective human resource management practices.

BBS2002 Recruitment & Human Resource Administration

This subject provides you with the knowledge and requisite skills to support the following major functions of human resource management: manpower planning, recruitment, selection, placement, orientation, employee communication, employee wellness, and computerised human resource information systems.

BBS2003 Management of Employee Relations

This subject exposes you to labour laws, the industrial relations framework of organisations and how to manage employee relations. You will also be introduced to a range of employee relations programme and learn how these can contribute to organisational effectiveness.

BBS2006 Principles of Corporate Communication

This subject provides an overview of the principles and practices of corporate communication. Topics include corporate communication strategy, internal and external stakeholders, corporate identity and image management, corporate advertising, crisis communication and corporate communication challenges.

BBS2007 Corporate Journalism & Publications

This subject provides you with a theoretical and practical understanding of corporate journalism and publications so that you can critique and produce corporate communication tools for appropriate target stakeholders. You will plan, develop, present and evaluate various corporate communication literature and tools like newsletters, brochures, flyers, annual reports, websites and corporate videos.

BBS2008 Franchising Business

This subject equips you with an understanding of franchising. It covers issues relating to the screening, evaluating, setting-up and expanding of new businesses in the area of franchising. The subject enables you to acquire skills to identify viable and feasible franchising business opportunities.

BBS2009 Managing Small & Medium Enterprises

This subject equips you with an understanding of how to manage the operations and challenges of small and medium-sized enterprises. You will acquire skills to manage the nature and challenges of small and medium entrepreneurial businesses. Through an understanding of issues pertaining to growth factors, market strategies and resource and operations management, the subject enables you to understand how an organisation manages the growth of business as markets and the competitive environment change.

BBS3001 Human Resource Development

This subject provides you with well-rounded knowledge in the field of human resource development. Topics such as training needs analysis, design, implementation and evaluation of training programmes, and career development will be covered.

BBS3002 Performance & Compensation Management

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

BBS3003 Corporate Events Management

This subject provides a theoretical and practical understanding of corporate events and enables you to develop practical skills necessary to plan, develop, present and evaluate a major corporate event. You will learn the whole corporate event management process, identify the key elements that are essential to the success of a corporate event and demonstrate an ability to plan, execute and evaluate a corporate event.

BBS3004 Media Relations & News Dissemination

This subject equips you with the practical knowledge and skills in media relations. You will learn how to plan a media relations programme, write news releases and captions, organise a media event, prepare for a media interview, create a media kit, conduct media research and select the appropriate media that will maximise coverage for an organisation.

BBS3005 Product Development & Innovation

This subject equips you with the process skills for product development and innovation through a comprehensive approach for success. You will focus on the process of innovation – the process for entrepreneurs to exploit change, with the intention of practising the processes behind developing new products based on industry pressure to innovate. You will learn how to best transform exciting ideas into successful new products; how to capture knowledge and creativity in the successful development of products; and understand the structures and systems appropriate for innovation and new product development.

BBS3006 Strategic Entrepreneurship

This subject equips you with an understanding of entrepreneurship and entrepreneurial management from a strategic perspective. You will learn entrepreneurial strategy, how entrepreneurial firms overcome resource limitations, entrepreneurial action in innovation, market entry mode choices of corporate entrepreneurs, networking and alliances of small entrepreneurial firms with large companies, international entrepreneurship, strategic leadership, and the relationship between entrepreneurship and growth. Through understanding the issues and challenges of strategic entrepreneurship, you will appreciate the different approaches used by entrepreneurs in wealth creation in the current business environment.

BBS3007 Issues in Global Management

This subject examines a variety of business and leadership practices with emphasis on global organisational values, diversity, challenges and culturally appropriate strategies for success in the rapidly changing world of international and multinational business.

BBT1001 Computer Systems & Applications

This subject covers the fundamental concepts in the main hardware components of a computer system. It provides you with an understanding of how these components are set up and how they function together. Current IT trends, mainly in the areas of e-commerce and Internet applications, will be discussed within the core framework of data communications, networks and security issues. The basic theory will be supplemented with hands-on exposure to office automation tools.

BBT1002 Managing Business Systems

This subject draws upon the foundation studies in computing taught earlier in Computer Systems & Applications. The major components are database design, database management and information systems management. The subject will cover database concepts and techniques and the use of a popular database package. You will also learn about the strategic use of information systems and how they are developed and managed.

BBT1003 Business Computing Skills

This subject is application-based and covers both basic and advanced features in office automation tools like presentation and spreadsheet tools, and how these software can aid in business decision-making. Business scenario-based projects will be used extensively which requires students to apply these valuable skills. The hands-on aspect of the subject is further enhanced and complemented with fundamental concepts on computer systems, software, the Internet, online security and current IT trends.

BBT1005 Computer Technology & Office Systems

This subject covers the fundamental concepts governing the main hardware and software components of a computer system. It also covers the basic concepts of computer networking and Internet-networking and provides an introduction to information systems in organisations. Theory will be complemented with laboratory sessions, aimed to expose students to office productivity tools and equip them with basic technical support skills.

BBT1006 E-Business Management

This subject covers the different types of e-commerce/business models, namely Business-to-Consumer and Business-to-Business. You will learn how companies adopt both business strategies and 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 and B2B sales.

BBT1007 Business Office Applications

This subject provides you with the fundamental concepts underlying the major components of a computer system and how these components work together efficiently and effectively. The theoretical foundation is complemented with laboratory hands-on exposure to using relevant office application software. It covers both basic and advanced features in the software to capture and manipulate data for strategic use.

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), a powerful tool which provides a seamless information system to integrate the various functional modules of 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. Today, greater attention is focused on extending the ERP to the Internet for e-commerce applications. You will understand the value of ERP systems to supply chain management and business intelligence. A popular 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 knowledge 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 implement enterprise applications. You will understand how the success of enterprise applications depends upon effective management, organisational change and the use of advanced technology. 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 technology, Internet/Intranet and e-commerce. You will have a chance to integrate the web-based ERP system and see the integration within and beyond the organisation.

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.

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.

BCC2004 Culinary Practicum

This subject is an intensive 600-hour practical course on the fundamentals of Western cooking with elements of Baking & 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. Students will be cooking in modern, fully-equipped kitchens for real paying customers dining in our on-campus restaurants.

BCC3001 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.

BCC3002 Catering Management
This subject focuses on the managerial aspects of food and beverage operations. It requires you to apply your learning from the subject Food & Beverage Operations. The subject culminates in a restaurant concept proposal and covers aspects such as manpower-planning, menu and wine list development, food and beverage costs control, as well as developing a food and beverage quality assurance programme.

BCC3003 Business 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.

BCC3004 Operations & Management of Food & Beverage
This subject introduces food service management and operations. It covers the implications of day-to-day operations, basic cost control systems, profitable menu planning, restaurant floor plans, equipment layout and planning, human resource deployment and training, low cost internal marketing ideas, customer care and building sales, and technological innovations. Legislation and various licenses governing food and beverage operations will also be covered. The subject will challenge you to review ways of raising operational efficiency of food and beverage business set-ups.

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.

BCM1004 Journalism 1: Newswriting
This subject covers the fundamentals of news-gathering, news-writing and news-judgement for all media, study of news sources, fieldwork, research and interview techniques.

BCM1005 Journalism 2: Feature Writing
This subject exposes you to practice in research, interviewing and writing the feature story, human interest, trends, personality profiles, sidebars, backgrounders, and colour writing.

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 inter-relationships of all media and their potential impact on the population.

BCM1007 Media Management Principles
The subject is an introductory class to media management. It covers the managing of media institutions and discusses their evolution, development, institutional arrangements, operations, and economic and organisational structure. You will also learn the ways in which institutional and organisational arrangements affect professional behaviour and media content.

BCM1009 Photography
This subject introduces you to the technical and aesthetic principles of photography and digital imaging manipulation. The subject will cover aperture and shutter speed control, exposure and lens angling and image reproduction like the characters and ISO sensitivity of different films. You will also learn the basic concepts and practical skills of photojournalism.

BCM1012 Essentials of Graphic Design
This subject is an introductory class to serve as the foundation for other core subjects. It will cover both the design and software aspects of graphics and layout. You will learn the various stages of conceptualising and drafting, as well as the actual production and incorporation of all elements into a single piece of print or electronic publication. You will also be taught the principles of design, typography and colour, to bring your message across to the target audience and elicit the correct response.

BCM1013 Marketing & Corporate Communications
This subject introduces you to the world of media marketing and publicity through various strategies and activities designed to promote products and services from an organisational perspective. You will also learn various promotional tactics in order to execute a campaign to generate positive publicity and media coverage.

BCM1014 Media Scriptwriting
This subject provides a foundation in the principles and concepts involved in writing script for the media. It covers writing for different media platforms: radio, TV, video, new media as well as multimedia. You will learn the various stages of conceptualising ideas or stories, structuring and outlining, producing treatments, drafting scripts based on audience and purpose and revising scripts, taking into consideration visual treatments and styles for various scripts.

BCM2002 Basic Sub-Editing
In this subject, you will acquire skills in editing stories for clarity, consistency and conciseness for newspapers and news publications. You will also learn about editing for accuracy, word clarity, completeness and story organisation, grammar and word usage, punctuation, spelling, house style, as well as the mechanics of writing headlines and captions.

BCM2003 Broadcast Performance
You will be introduced to the various aspects of presentation required for effective on-air broadcast performance. The main components covered will include breathing techniques, pronunciation, sentence structure, diction and vocal delivery. You will also be taught the relevant broadcast presenting skills for the different types of on-air broadcasting and how to conduct broadcast interviews.

BCM2006 Film Theory & Criticism
In film theory, you will be introduced to the aesthetics of cinema and taught how a film is created and how it functions. Attention will be focused on the four primary components of film technique and production: mis-en-scene, cinematography, editing and sound. Film criticism introduces you to the different schools of film criticism and how to write film critiques.

BCM2007 Introduction to Audio Production
This is an introductory subject to audio production. You will learn the essential writing, listening and technical skills required to produce programmes for radio. You will also learn the various tools of the trade and how to operate each effectively. As part of the learning, you will be required to produce a series of short capsules for radio.

BCM2008 Multi-Camera Studio Production
In this subject, you will be introduced to the principles and concepts of multi-camera studio production. You will be taught to perform the various roles of the studio production crew and will be required to direct your own studio productions and complete a series of projects as part of the assessment.

BCM2010 Radio Studio Production
You will learn the techniques of live studio presentation including on-air announcement/ presentation, conducting one-on-one interviews and chairing live panel discussions. You will also be trained to operate equipment used during live broadcasts. The subject also focuses on research and writing for radio, particularly in relation to planning of interviews and radio documentaries.

BCM2011 Single Camera Production
You will learn the concepts and processes in single camera production and will be taught the various stages of production. As part of the subject, you will learn camera operations, filming techniques, indoor/outdoor lighting techniques, basic scripting, directing and nonlinear editing.

BCM2014 Digital Media Production
This subject offers an insight into the theory and practice of digital media design and development. It aims to provide you with an understanding of the fundamentals of interactive media design through exposure and manipulation of various media and techniques. You will learn the various tools required for creating digital content.

BCM2015 Chinese Media Writing
Specially tailored for students interested in writing for the Chinese language media, this subject covers the various techniques and formats for writing in Chinese through an examination of reviews, editorials, features and reports. It also covers basic translation techniques.

BCM2016 Magazine Production
This subject covers the principles and techniques of magazine editing and production. You will practise writing headlines, titles and captions, photo-editing, layout design and use of computer editing technology. You will also study tools with which you can turn raw copy into publishable content that caters to specific audiences, angles and communication needs.

BCM2017 Professional Communication
This subject emphasises the communication skills in a professional setting. You will be taught how to write effective business correspondences, including job application letter and resume, and how to conduct yourself at interviews. You will also be taught aspects of intercultural communication, meeting skills, as well as how to write minutes of meetings in a business setting.

BCM2018 Media Research
The subject gives you a broad understanding of media research. It covers research methods, content analysis, survey research, experimental design, computer-based analysis tools and investigative reporting. You will conduct case studies on research reported in the media, examine the consequences of media research and study the research of “consumers” or readers.

BCM3010 Web & Digital Media Management
This subject provides you with the knowledge and skills to develop and manage web pages and digital media applications. Through hands-on sessions, you will be introduced to the essential tools needed to develop digital media projects. You will also explore and discuss new technological changes in the media and communications industries. As part of the deliverables of the subject, you are expected to be able to build a fully-functional website and applications for various platforms.

BCM3011 Major Project
This 8-cu 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 freedom to develop your project within a supervisory relationship with your 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.

BCS1003 Legal Communication Skills 1
This subject will give learners an overview of what communication is and provide opportunity for the practice of effective communication in the legal context. The subject introduces skills for the acquisition of law-related vocabulary, skills for reading in the legal context and oral presentation skills. In addition, learners will be taught listening, note-taking, mind mapping and telephone skills for use in the legal context.

BCS1007 Writing & Presentation Skills
The subject will give you an overview of report writing and presentation skills. In report writing, you will learn about the different types of reports and how to put together a complete business report using the appropriate language and format. In terms of presentation skills, you will learn how to prepare and deliver an effective oral presentation.

BCS1008 Meeting Skills & Communication Etiquette
This subject aims to equip you with the communication skills that are vital for your success at the work place. You will learn the skills of conducting yourself professionally in different formal business situations. You will also learn how to deal with cross-cultural situations and acquire networking skills. Additionally, you will develop skills in writing different types of meeting documents such as agenda, notice of meeting and minutes of meeting.

BCS1009 Business Correspondence & Job Search Skills
The subject provides you with the relevant business correspondence skills for internal communication with company staff, and external communication with business partners. You will study business writing skills such as writing emails, memos and letters for inter-office and intra-office communication. You will also learn how to write job application letters and resumes, and how to conduct yourself appropriately at job interviews.

BCS2001 Legal Communication Skills 2
Students will build on the basic communication skills acquired in Legal Communication Skills 1 to learn other communication skills necessary to conduct effective meetings and interviews in a legal context. Students will also be trained to draft legal opinions and legal letters.

BEC1001 Microeconomics
This subject provides 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 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.

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.

BHT1018 Etiquette of Business & Service Knowledge
This subject covers the fundamentals of grooming, dining, office culture and practices that are essential in enabling you to make the transition from education to work. The service knowledge aspect will serve as a foundation upon which you can draw various theories and strategies of customer service and learn how to apply these in your future dealings with clients/ customers during your internship and work life.

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.

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.

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 not only the technical skills required to provide efficient and competent service, but also 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 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. Students will have 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. Students 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 niche tourism, 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.

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.

BLM1003 Legal Systems & Methods 1

This subject introduces the concept of law and the legal system in Singapore. You will learn the respective roles and structure of the executive, legislature and the judiciary. You will also be trained in case reading and statutory interpretation.

BLM1004 Legal Systems & Methods 2

This is a follow-up on Legal Systems & Methods 1 to further reinforce skills such as statutory interpretation. There will be field trips to key legal institutions such as Parliament to bring alive the study of the legal system of Singapore. You will gain an insight into the Legislature and the Executive in this component.

BLM2001 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.

BLM2002 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.

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.

BLM3001 Advanced Civil Procedure

This subject focuses on the civil litigation process from the post-judgement stage, including the basics of insolvency proceedings. It also covers accident litigation, matrimonial proceedings and an introduction to the Electronic Filing System.

BLM3002 Arbitration & Alternative Dispute Resolution

This subject introduces the various dispute settlement processes with emphasis on arbitration and mediation. Students will learn both the theoretical and practical aspects of mediation and arbitration.

BLM3003 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.

BLM3004 Commercial Transactions

This subject introduces the Sale of Goods Act, the concepts of "property" and the passing of risk. It includes common commercial transactions like hire purchase and leasing and covers international trade and legal issues relating to e-commerce.

BLM3005 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.

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.

BLM3007 Insurance Law & Practice
This subject provides an understanding of the law that governs the insurance business in Singapore as well as the concepts and legal aspects of insurance and its application to the main classes of insurance. Topics covered include risk management, insurance operation, insurance legislation and documentation, principles of insurance such as duty of utmost good faith and insurable interest, various classes of insurance such as motor insurance and the operational aspects of insurance in relation to claims and settlements. It also covers the duties and responsibilities of Agents and Brokers.

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.

BLM3010 Law of Banking & Finance
This subject introduces you to key aspects of the banker-customer relationship, and the rights and obligations owed by each party to the other. It covers the law relating to negotiable instruments and also examines the legal framework for various financing transactions.

BLM3011 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.

BLM3012 Shipping Law & Practice
This subject introduces the general principles of shipping law and practice in Singapore, with emphasis on procedures in the arrest and sale of vessels and the salient aspects of ship registration. The law governing carriage of goods by sea will also be covered.

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.

BLM3016 Media Law
Designed for non-law students, this subject looks at the laws, rules and regulations governing the media in Singapore. In particular, it focuses on intellectual property, slander and libel laws in relation to the broadcast, print and Internet media. The subject also addresses ethical issues and considerations in news reporting and gathering.

BLO1001 Business Statistics
The subject provides an overview of descriptive and inferential statistics. It includes data description, basic concepts of probability, linear regression and correlation, probability distributions and hypotheses testing. You will learn to use basic statistical concepts to solve simple business-related problems.

BLO1002 Business Calculus
The subject provides concepts of calculus and an understanding of the application of calculus to solve business problems. Topics such as functions, graphs and limits, differentiation, exponential and logarithmic functions, and integration will be covered.

BLO1004 Research for Hospitality & Tourism
The subject provides a basic understanding of statistics and research techniques. You will learn to formulate a research problem relating to the hospitality and tourism industry, and to validate information sources that are useful in the solution of the problem. The subject also covers basic research theories and research-related software.

BLO2002 Logistics & Supply Chain Management
This subject covers the macro aspects of business logistics and supply chain management. It emphasises the integration of logistics with other functions of business and the contribution of logistics to the economy. It also examines other trends such as outsourcing and third party logistics (3PL). You will be given hands-on experience via experiential games to simulate the bull-whip effect in the supply chain.

BLO2003 Management Science
This subject equips you with management science techniques to solve real-life operations-related applications or problems. You will be able to apply the knowledge gained by using the related software in your decision-making processes.

BLO2004 Operations Management
This subject provides the various concepts and principles of operations management. The subject will focus on the application of operation tools used in both manufacturing and service industries. It will also cover the nature of operations, product development, process design and analysis, quality improvement tools, capacity planning, operations scheduling, facility location and layout planning.

BLO2005 Purchasing Principles & Practice
This subject provides the knowledge of purchasing principles and practices, coupled with an understanding of the operations in supply chain management required for purchasing personnel to perform their duties. It covers supplier management, purchasing performance measurements, planning and control, negotiation, bidding and global sourcing.

BLO2010 Distribution Centre Management
This subject provides an overview of the role of distribution centre in the supply chain management process. It covers the various activities performed in a distribution centre and their impact on customer service and total logistics cost. You will learn the various types of storage system and material handling equipment, the planning process for efficient operations, and the practices and trends of the distribution and warehousing industry in Singapore and the region.

BLO2011 Materials Management
This subject provides an overview of materials management with emphasis on planning, scheduling and controlling the flow of materials to achieve shorter lead time and faster turnaround for finished goods to reach customers. It also equips you with knowledge of inventory management and control. You will be taught the application of IT in materials management.

BLO2012 Quality Management
The subject provides an overview of the relation between quality management and its impact on the success of organisations. It focuses on the principles and practices of Total Quality Management and techniques associated with controlling and managing quality in organisations. The subject covers the framework and criteria used to assess a company's quality system. You will also be introduced to international standards such as ISO 9000 Series, ISO 14000 Series and the Singapore Quality Award.

BLO3003 Logistics Planning & Control Systems
This subject provides an overview of the information systems and technology applications in logistics planning and control as a competitive advantage in business. You will be exposed to the application of IT in demand planning, warehouse management, transport management, order processing and other logistics areas, through hands-on practice using industrial application software.

BLO3008 Transport Management
The subject provides an overview of the various aspects of transport operations and management and its importance in the international trade and management of supply chain. The subject covers the important freight concepts such as the Incoterms, Harmonised System (HS) Codes, customs duties and GST. You will be given hands-on training to prepare standard shipping documents, calculate shipment cost and declare trade permits using the Tradenet software.

BLO3009 Logistics & Operations Measurement
This subject deals with the current approaches used in measuring performance of logistics and operations activities. You will be introduced to key performance indicators commonly used in the industry through the use of case studies. You will also learn to identify opportunities for performance improvement, conduct feasibility studies, quantify the benefits of the improvements and implement various improvement processes.

BLO3011 Bio-Chemical Logistics
The subject equips you with basic understanding of international and local regulations governing the logistical aspects of chemical and bio-chemical products and how to apply these regulations to ensure the safe storage, handling and transportation of chemical and bio-chemical products without endangering the safety of personnel and the environment. This subject also instils a sense of responsibility which is necessary when you have to deal with such products in an actual work environment.

BLO3012 Logistics Service Management
This subject focuses on the quantitative and qualitative aspects of managing customer-centric logistics services. It begins with an overview of logistics services and customer service. The service elements as applied to the supply chain processes of source, make, deliver and return will be discussed. You will also be introduced to common tools and techniques that support customer-driven service requirements. Discussions on customer service in an outsourced environment with central focus on 3PL will be also conducted.

BLO3013 Advanced Supply Chain Management

The subject covers advanced topics in supply chain management. It comprehensively covers e-markets and extended enterprise for collaborative commerce, as well as relationship management and fulfilment strategies. Competitive supply chain models will be expounded on with contemporary measures on supply chain risks and continuity. The subject also uses industry software to help your learning.

BLO3014 Supply Chain Simulation & Modelling

The subject covers the use of simulation software to model the various key elements of a typical supply chain such as production, order processing, queues, inventory management and distribution. You will learn to analyse the output from these models and to deploy resources optimally to improve the overall efficiency and effectiveness of the supply chain.

BLO3015 Global Trade & Singapore Logistics

The subject provides an overview of the roles of global trade and logistics in supporting and effecting the economic development of Singapore. It covers the logistics sector in Singapore as an enabler for trade. It also provides exposure to key initiatives driven by the various government agencies such as Economic Development Board, the Singapore Customs and International Enterprise Singapore. You will also learn about the role of World Trade Organisation, free trade agreements and regional treaties.

BLO3016 International Freight Practices

This subject provides you with in-depth knowledge of freight management, built on the foundation knowledge acquired in Transport Management. It focuses on the significance of freight transport in the global setting and freight as part of the production and distribution systems. Topics related to freight tariff systems, costing, operational flows, customs documentation and clearance procedure give you a good understanding of the practices in the industry. You will also be taught the best practices and performance measurements used in the industry. Strategies to increase the efficiency of freight and to encourage more efficient freight delivery will also be discussed.

BLO3017 Cold Chain Management

This subject provides you with the knowledge of health and safety factors in the storage, handling and transport of chilled and frozen food products. Topics related to food safety and health issues affecting individuals and the food industry will be discussed. You will be introduced to the regulations relating to the storage and transportation of chilled and frozen products in Singapore. You will also be taught the import and export requirements covering the logistical aspects of chilled and frozen food products.

BLR2002 Attractions Management

Forming the backbone of this subject is the study of the various types of visitor attractions, both man-made and natural, their unique characteristics and corresponding management and operational concerns. The linkage 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, hotel and resort gaming organisational structure, 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 will provide students with the opportunities to learn a variety of sponsorship and marketing strategies applied in the event sector through the use of case studies. Students will be exposed to the theories and concepts applied in sponsorship and marketing, which is a vital component of contemporary event management. This module also aims to develop students' presentation, planning and business skills that are required to secure successful partnership and collaborations.

BLR2008 Revenue Management for Leisure & Events Business

This subject will provide students with an understanding and overview of revenue management that is pertinent and practised in the leisure industry. This will include areas such as convention centres, golf clubs, cruises, spas and theme parks. The coverage will include basic concepts such as demand forecasting and yield management, similarities and strategies and tactics used by the leisure industry with regards to revenue management.

BLR3001 Festivals & Events Management

The subject introduces the scope and the operational aspects of events in the context of the leisure industry. To achieve this, you will be introduced to knowledge involved in the planning, development, programming and production of medium and large scale events. Key topics such as the type, importance of events for the leisure and tourism sectors, marketing, human resource management, and 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, management of service excellence and quality issues, financial management, marketing, events planning, recreation, sport and fitness facilities management. The subject emphasises the development of technical and conceptual skills for successful club management.

BLR3005 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, as well as its characteristics, maritime issues, cruise facilities, cruise operations management with an emphasis on cruise destinations, itinerary planning, and sales and marketing aspects of the cruise business.

BLR3008 Spa & Wellness Management

This subject provides a comprehensive overview of the operations and management of spa and wellness businesses. As a starting point it will examine the different types of spa and wellness organisations and proceed to examine 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.

BLR3010 Sports & Arts Business

This subject will introduce students to the scope of sports and arts business concepts and their application in the context of the leisure industry. Students will be equipped with perspectives on the role of sports and arts as key sectors of the leisure industry. Students 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. Students will also learn about the strategic stakeholders in the arts, and applying business concepts to the field of arts.

BMK1001 Basics of Entrepreneurship

This subject examines the traits of successful entrepreneurs and the basic elements of generating new business ideas. Through lectures, online learning and tutor consultation, you will have the opportunity to identify, assess and select viable businesses, and then develop preliminary business proposals through a typical entrepreneurship process. It helps to develop your entrepreneurial mindset.

BMK2001 Advertising & Promotion

This subject provides you with an understanding of customer communications. It focuses on the role and the entire process that marketing communications play in developing strong relationships with customers, channels and other stakeholders in a variety of contexts.

BMK2002 Consumer Behaviour

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.

BMK2003 Customer Relationship Management

This subject provides an overview of the importance of developing long-term and profitable relationships with customers and the processes that enable an organisation to communicate and relate to customers. It focuses on managing customer dynamics, attitudes and perceptions.

BMK2004 Financial Aspects of Marketing
This subject provides a broad overview of financial management and introduces financial techniques and concepts that are important to marketers. It gives you an opportunity to use financial statements and ratio analysis to assess a company's financial health and its future prospects.

BMK2005 Marketing Research
This subject provides an overview of the role of marketing research 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 research is an absolute necessity.

BMK2007 New Media Marketing
This subject provides insights into the use of new media as a marketing platform in consumer engagement and achieving marketing objectives.

BMK2014 Creative Campaign Project
This subject provides an understanding of the creative process and practical issues in marketing campaigns. You will learn to generate effective communication messages and creative strategies and explore different techniques in visual communication. You will also learn the essentials of client and campaign management and get an overview of socially responsible communication and practices.

BMK3003 Global Marketing
This subject covers the principles and practices of global marketing. Among other things, you will acquire the ability to assess and select target country-markets for market development, know how to evaluate and use the most suitable market entry strategies to service country-markets and develop a basic global marketing plan.

BMK3004 Strategic Marketing
This subject provides an overview of the planning and control in strategic marketing development and implementation. Product development, innovation and creativity are highlighted to reflect the increasing importance in these key areas. The impact of rapid advances in technology on globalisation and implications for marketing will also be covered. You will develop core skills in preparing and presenting practical marketing plans.

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.

BMK3006 Practice of Entrepreneurship
This subject gives you the opportunity to conduct field research in order to identify, evaluate and select a viable business. You will develop a realistic business plan expected of an entrepreneur or intrapreneur. You will be given the opportunity to learn the skills needed for managing entrepreneurial start-up companies and to understand the challenges faced by entrepreneurs and intrapreneurs working for large companies.

BMK3007 Principles of Entrepreneurship
This subject covers the key principles of entrepreneurship. The early part of the course examines the traits of successful entrepreneurs. You will learn how to identify business opportunities and be given the opportunity to conduct field research in order to identify, evaluate and select viable businesses. You will then prepare basic business plans.

BMK3008 Public Relations
This subject seeks to equip students with the essentials of public relations and event management. Students will acquire the theories, tools and techniques of public relations and apply them to real-life situations professionally. Emphasis will be placed on public relations and events that seek to enhance understanding between an organisation and its stakeholder publics.

BMK3010 Services Marketing
This subject focuses on the unique challenges of managing services and delivering quality service to customers. The attraction, retention, and building of strong customer relationships through quality service are at the heart of the subject content. The content is applicable to organisations whose core product is service and to those that depend on service excellence for their competitive advantage.

BMK3011 Brand Management
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 exploring and understanding the importance of brands, what brands mean to consumers and how to develop, manage and protect brands.

BMK3012 Sales & Account Management
This subject provides you with a comprehensive coverage of consultative selling, partnering, value-added selling, contextualised selling in both consumer and non-consumer industries, and fundamentals of sales management.

BMK3013 Integrated Marketing Communications
This subject provides you with an opportunity to gain a basic understanding of the various marketing communication functions, media alternatives, creative strategy and the integrated marketing communications concept and process. Topics covered include advertising, public relations, sales promotion, direct marketing and evaluation and strategies in integration. You will apply these tools and concepts to develop long-term, profitable brand relationships.

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. Students work in teams throughout the semester to produce a business proposal, system prototype, and technical documentation. They are also required to make a formal presentation of the project undertaken.

BMP3007 Major Project (Logistics & Operations Management)
This subject provides you with an opportunity to understand real-life problems in companies. The integration of the various fields of logistics requires you to apply the knowledge learnt throughout the course to solve real-life problems. You will work as a team to identify the problem, conduct independent research, collect the relevant data for analysis and make feasible recommendations through a comprehensive report and a formal presentation.

BRM1001 Retail Accounting 1
This subject explains and illustrates how retail business transactions are recorded, summarised, classified and reported and the underlying accounting principles that govern the techniques employed.

BRM1002 Principles of Retail Management
This subject introduces the basic principles and concepts in the field of retailing with particular emphasis on topics ranging from an introduction to basic retailing principles and practices, building and sustaining relationships in retailing to the key elements in the retail marketing mix.

BRM1003 Retail Accounting 2
This subject explains and illustrates how a retail business transacts with particular emphasis on cash management, inventory management, accounts receivables, accounts payables, fixed assets, long-term liabilities and shareholders' equity.

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.

BRM2002 Retail Visual Merchandising
This subject equips you with the skills and abilities to help retail operations visually differentiate themselves. It focuses on principles and practices of visual merchandising with particular emphasis placed on design principles, visual display components, types of visual merchandising techniques and emerging trends in visual merchandising.

BRM2006 Store Management
This subject introduces the basic principles of store management with particular emphasis on topics ranging from introduction to store management, human resource management to operational management.

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.

BRM2110 Financial Aspects in Retail Management
This subject provides a broad overview of finance and accounting fundamentals that includes financial techniques and concepts that are important to the retailing industry. You will learn the various financial aspects of retailing such as the analysis of financial statements, merchandise budgeting and capital investment decisions.

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.

BRM2117 Service Leadership

This subject provides you with an overview of the management frameworks that can be implemented so as to promote a quality service mind-set amongst the team. These include techniques in empowering service staff to help them achieve higher customer satisfaction, acquire requisite knowledge in providing service coaching to employees as well as developing skills in conflict management and role modelling in order to foster a customer-centric working environment.

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.

BRM3007 Retail Informatics

This subject provides you with the working fundamentals in Internet retailing and Customer Relationship Management (CRM). Emphasis will be placed on understanding the role and contemporary challenges of Internet retailing, customer relationship management strategies, basics of website design and ethical issues on the Internet.

BRM3008 International Marketing & Retailing

This subject provides you with skills to address major issues and complexities affecting marketing and retailing at a global level. Areas of focus include internationalisation strategies and the cultural dimensions impacting international marketing/ retailing and global trends.

BRM3112 Strategic Retailing

This subject provides an overview of the planning and control in strategic retailing and implementation. Product development, innovation and creativity are highlighted to reflect the increasing importance in these key areas. The impact of rapid advances in technology on globalisation and implications for marketing are also covered.

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.

BRM3115 Retail Event Management

This subject seeks to provide you with the opportunity to plan and manage retail events such as new retail business launches, product launches, and other high profile retail promotional events. You will have the opportunity to create a project blueprint for the planning and execution of important retail-based events, for example, new retail store launches and new retail concept launches.

BRM3116 Retail Business Development

This subject provides you with the knowledge and skills required to start a retail business and develop a differentiating retail strategy. It integrates the knowledge and content covered over your three years of study. You will have the opportunity to conceptualise and implement a viable retail business idea. Key topics in the subject 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 aspects in retail operations, merchandise mix, visual merchandising, branding and financial forecasts.

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.

BSI3002 Student Internship Programme (Business)

This 12-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.

BSI3003 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.

BSI3004 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 many different industries.

BSI3006 Student Internship Programme (Law & Management)

This 12-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.

BSI3007 Student Internship Programme (Logistics & Operations Management)

This 12-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 to experiences in an organisational setting. This practical training also provides you with the opportunity to apply logistics and operations management concepts and skills to projects and work situations.

BSI3008 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.

BSI3010 Student Internship Programme (Retail Management)

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.

BSI3011 Student Internship Programme (Accounting & Finance)

This 14-week 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 skills in accounting and finance, this practical training also provides the opportunity to build important soft skills such as problem-solving, communication and teamwork.

BSI3012 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.

BSI3014 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 they are placed in.

BSI3015 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.

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.

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.

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.

LEA1001/1002/1003 Leadership: Essential Attributes & Practice (LEAP)

This is a leadership and character education programme that comprises three core subjects – LEAP 1, 2 and 3. It seeks to cultivate in students the dispositions (i.e. attitude, skills and knowledge) towards the development of their leadership competencies. It is a leadership programme that enables students to develop leadership life-skills that embrace character as the core foundation for their leadership credibility and influence.

SCHOOL OF DESIGN

Contents

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 design school that offers the fullest, 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 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 degree-granting design institutions for undergraduate and postgraduate studies in Australia, UK, USA, Europe and other parts of the world.

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 and your learning experiences here will reflect that. 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 Joint Polytechnic Special Admission Exercise (JPSAE).

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

Taking an interdisciplinary approach, the BeyonDesign Centre uses design to harness new opportunities that are presented by technological, cultural and social changes in ways that are community-centric and cause-driven. The Centre will pursue collaborations, projects and research with our stakeholders, peer institutions, industry partners and the design community at large to use good design to help solve the issues of the world, design smarter cities, focusing on sustainable energy, safer buildings, richer experiences, better systems, strategies and new ways of living. The Centre facilitates, teaches and exposes Design students to the co-creation processes to go beyond the call of design, to do good and to do what is needed to improve and touch the lives of the community we live in.

Hereafter (HD) 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.

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

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.

Computer-Aided Design and Manufacturing Laboratories

Equipped with the latest hardware, CAID and 3D modelling software, the CAM facilities allow students to add professionalism to their apparel and textile designs, mood boards and merchandising projects, enabling them to relate to the production aspect of the apparel industry. Students can add professional lustre to their apparel and textile design projects here.

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.

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

"The quality of outcomes is matched by the conceptually challenging research and design development resulting in innovative outcomes with a global appeal. I am impressed by the work ethic of the students encouraged and nurtured by the staff team.

- Alison Taylor
Programme Leader, Fashion Textile Design,
University of West England, Bristol, U.K.

The fashion industry is fun, fast-paced, exciting and glamorous. But behind the scene at every fashion show is a whole lot of hard work. If you think you can spot the right trends, if you thrive on the adrenalin-fuelled rush of putting a show together, if you roll your eyes at boring store windows and your pulse races each time you sketch out a new fashion inspiration, then we just might have the course for you.

With options to specialise in either Fashion Design & Merchandising, or Retail & Visual Merchandising, this course offers you the best immersion experience in a fashion school setting. Unlike conventional fashion courses, we expose you to different facets of the fashion industry enabling you to choose and specialise. Whether your calling is in fashion designing or in getting your ideas out there into storefronts and magazines, you can be sure that this is the place that will nurture your aspiration to be the next maverick in the fashion world.

The course offers a broad overview of the industry, as well as an introduction to design fundamentals. It is designed to be stimulating and inspirational for students to enjoy the learning process. When you are better-informed, you can then choose to specialise in either Fashion Design & Merchandising or Retail & Visual Merchandising.

In Fashion Design & Merchandising, you will discover the challenging intricacies of the apparel design and merchandising workflow. As a new generation designer you will learn to express aesthetics by experimenting and exploring new trends and translating your bold visions in fashion and apparel into actual wearable pieces. Learning the key tools of drafting, draping and sewing will enable you to demonstrate expressive and experimental creativity to bring your ideas to life on the catwalk.

Retail & Visual Merchandising is for you if you enjoy the business end of fashion. You will learn about all the activities related to the business aspects of developing, promoting, marketing and managing apparel items from conception to purchase. Essentially, you will better understand the fashion customer and you will use this knowledge to its best advantage in your product line.

Career Opportunities

Retail & Visual 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 & Merchandising graduates make fashion waves as apparel and textiles designers, merchandisers with apparel manufacturers and product development department, assistant pattern-makers and sample-makers. Some of our graduates have even set up their own businesses.

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".

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

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 & 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).

Note: Applicants who have partial or complete colour appreciation deficiency should not apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 57 credit units
Elective Subjects	: min 36 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 122 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1101	History of Costume	1	3
DAD1102	Fashion Merchandising	1	3
DAD1104	Introduction to Visual Merchandising	1	3
DAD1140	Fashion Retail Management	1	3
DAD1148	Textiles Fundamentals	1	3
DAD1149	Textiles Manipulation & Design	1	3
DAD1151	Apparel Production 1	1	3
DAD1161	Basic Sewing Techniques	1	3
DAD1162	Concept Research & Presentation Techniques	1	3
DAD1163	Figure Drawing & Production Drawing	1	3
DPS1020	Design Fundamentals	1	6
DPS1021	Marketing in Design	1	3
DVC1509	Digital Essentials	1	3
DAD2113	Sourcing & Costing	2	3
DAD2122	Apparel Manufacturing Process	2	3
DMP3012	Major Project: ADM	3	9

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Fashion Design & Merchandising Option			
DAD1150	Fashion Illustration & Production Drawing	1	3
DAD1152	Basic Draping	1	3
DAD2116	Advanced CAD	1	3
DAD2138	Basic CAM	2	3
DAD2144	Pattern Grading	2	3
DAD2147	Apparel Design Projects	2	6
DAD2153	Apparel Production 2	2	3
DAD2154	Advanced Draping	2	3
DAD3127	Quality Assurance in Textiles & Apparel	3	3
DAD3157	Apparel Production 3	3	3
DAD3158	Tailoring	3	3
Retail & Visual Merchandising Option			
DIA1202	Media Techniques & Presentation	1	3
DIA1220	Space Planning	1	3
DIA1221	Colour & Light	1	3
DVC1542	Photography	1	3
DAD2116	Advanced CAD	2	3
DAD2142	Fashion Purchasing Management	2	3
DAD2155	Visual Merchandising Project 1	2	6
DAD2156	Visual Merchandising Project 2	2	6
DAD3160	Events Management	3	3
DIA3218	Retail Design	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

COMMUNICATION DESIGN

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 Ehses
Professor of Design
Director MDes
School of Graduate Studies
NSCAD University, Canada

Love playing with colours, words, images, photographs? Exhilarated by deadlines? Thrive on the adrenaline of coffee-fuelled rushes to push out design solutions? Think you're ahead of your time in your ideas and expressions? Don't keep it all inside.

Break convention and lead the pack in this bold new world where the borders between the traditional and the innovative blend, where the digital realm merges seamlessly with the analogue. This is where your ideas, words and images come alive through strong messages that resonate with the rest of the world.

The Communication Design diploma programme is an evolution of the Interactive Media Design and Visual Communication diploma programmes. Today the mainstream formats of print, broadcast and publishing still exist alongside newer digital media such as the Internet and mobile smart phone technology. Information is presented in multiple formats across a variety of platforms. Communication design is about the use and combination of words, images, colours, pictures, videos to effectively communicate ideas and messages.

Because design is a richly complex field of study that encompasses both idea and expression, the student who selects design should be one who is bright, curious, creative, and ready to explore different ideas. While a background in art or design and technology would be helpful, design studies increasingly require strong analytical and research skills from a mind that is both intellectual and inquisitive.

The course offers the best of both worlds – a broad-based design education and the opportunity to specialise in a specific field. The first year cultivates a strong creative, visual and aesthetic sensitivity. From the second year onwards, students will select either Photography or Branding Design or Design Illustration or Digital Design to specialise in. Entirely project-based, there will be many opportunities for students to expand their range of conceptual, expressive and presentation skills through a rich variety of experiences such as inter-disciplinary projects, industry projects, study trips, overseas internships and more. Students will emerge as versatile and responsive designers who can offer fresh insights and solutions for their clients in an increasingly integrated design environment.

Career Opportunities

This diploma course will groom a new breed of savvy designers with a flexible approach to using these varied tools across traditional and digital platforms to communicate key messages. This versatility is sought after in industry today. Graduates can find themselves in careers in the creative, media, communications, publishing, branding industry as creative directors, art directors, brand specialists, graphic designers, photojournalists and illustrators.

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".

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

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 & 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).

Note: Applicants who have partial or complete colour appreciation deficiency should not apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 27 credit units
Elective Subjects	: 66 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 122 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIM1345	Ideation	1	3
DIM1366	Interactive Studio: Web	1	3
DPS1020	Design Fundamentals	1	6
DPS1021	Marketing in 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 Stylisation & Techniques	1	3
DIM2367	Interactive Studio: Web 2	2	3
DIM2368	Studio Project	2	6
DVC2514	Advertising	2	3
DVC2565	Typography 2	2	3
DVC2566	Prepress & Applied Techniques	2	3
DVC2567	Publication Design	2	3
DIM3372	Studio Project 2	3	6
DMP3022	Major Project: Communication Design	3	9

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Photography Option			
DVC1579	Narrative Photography	1	3
DVC2521	Product & Advertising Photography	2	3
DVC2553	Studio Lighting	2	3
DVC2561	Alternative Photographic Techniques	2	3
DVC2568	Digital Imaging Techniques	2	3
DVC2572	Tactile Design	2	3
DVC3569	Landscape Photography	3	3
DVC3570	Fashion Photography	3	3
DVC3571	Conceptual Imaging	3	3
Digital Design Option			
DIM2369	Interactive Studio: Media	2	3
DIM2370	Interactive Studio: Media 2	2	3
DIM2371	Interface Design	2	3
DIM2376	Interactive Project	2	6
DVC2574	Advertising Communication	2	3
DIM3373	Interactive Studio: Beyond Screen	3	3
DIM3374	Interactive Studio: Mobile Devices	3	3
DIM3375	Advertising Media Strategy	3	3
Branding Design Option			
DPS2022	Brand Strategies	2	3
DVC2518	Information Design	2	3
DVC2572	Tactile Design	2	3
DVC2573	Kinetic Graphics	2	3
DVC2574	Advertising Communication	2	3
DVC3536	Corporate Identity	3	3
DVC3575	Beyond Print	3	3
DVC3576	Branding Design	3	3
DVC3580	Packaging Design	3	3
Design Illustration Option			
DVC2518	Information Design	2	3
DVC2552	Expressive Illustration	2	3
DVC2572	Tactile Design	2	3
DVC2573	Kinetic Graphics	2	3
DVC2574	Advertising Communication	2	3
DVC3556	Digital Illustration	3	3
DVC3575	Beyond Print	3	3
DVC3577	Narrative Illustration	3	3
DVC3578	Explorative Illustration	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

DIGITAL FILM & TELEVISION

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

All your life you've marvelled at the larger-than-life stories that play out on the big screen. Maybe you've wondered if you'd one day see your name up there in the credits of a critically acclaimed film. You're a big fan of the goggle box and you're fascinated by the intricate production process that takes place behind the scenes of a television series. If you have a lifelong love affair with television production, good movies and documentaries, have an overwhelming passion to tell your stories on film, this is the place to start. Who knows, you might even be the next exciting discovery to take the film and media industry by storm!

This is where we give you the tools and the inspiration to write screenplays, direct strong emotive dramas and documentaries and maybe one day even produce an award-winning film. This is where you not only learn the technicalities of making a good film, but all the other stuff you need to know to get your film up on the big screen. Learn to pitch and sell an idea, and decide whether it's good enough to hook an audience. Explore the possibility of creating content for multiple platforms. Grasp the elements of writing persuasive and lively proposals to attract investors to fund your potential blockbuster. Experience the magic of good screen-writing and dive into producing, directing and editing to practise the art of emotional storytelling for the screen.

Your lecturers will not just teach you, they will also be your mentors. They will share their years of experience with you and show you what it takes to write/produce/direct award-winning stories in documentaries, films and television shows. With the support of well-established partners in technology working in tandem with us, you will receive a quality education that is on par with world-class institutions, a launch pad for a rewarding career in the challenging and creative media industry.

Your journey as an award-winning film-maker begins right here.

Career Opportunities

Your skills will enable you to have challenging and rewarding careers in the growing film and media industries, not only here in Singapore, but internationally. You might just be the next big name film or television producer/ director, digital post-production editor, or top-notch director of photography.

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".

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

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 & 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).

Note: Applicants who have partial or complete colour appreciation deficiency should not apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 24 credit units
Diploma Subjects	
Core Subjects	: 84 credit units
Elective Subjects	: 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2023	Student Internship Programme	2	12
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DMV1601	Creative Storytelling	1	3
DMV1604	Camera & Lighting	1	3
DMV1656	Basic Video Project	1	6
DMV1657	Idea Incubation	1	3
DMV1659	Introduction to Directing	1	3
DMV1661	Location Sound	1	3
DPS1020	Design Fundamentals	1	3
DMV2611	Video Editing	2	3
DMV2644	Project Pitching	2	3
DMV2645	Production Planning & Management	2	3
DMV2647	Directing	2	3
DMV2657	Documentary Project	2	6
DMV2658	Short Film Project	2	6
DMV2660	Studio Production	2	3
DMV2662	Production Design in Film & Television	2	3
DMV2664	Overview of Non-Fiction	2	3
DMV2666	Film Genre	2	3
DMP3021	Major Project: DFT	3	9
DMV3626	Screen Writing	3	3
DMV3659	Advanced Video Project	3	6
DMV3660	Content Evolution	3	3

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Production & Technical Option			
DMV2667	Audio Post	2	3
DMV3664	Cinematography	3	3
DMV3665	Advanced Editing	3	3
Directing Option			
DMV2665	Writing for Non-Fiction Film & Television	2	3
DMV3661	Advanced Directing	3	3
DMV3662	Reflections on Global Perspectives	3	3
Producing Option			
DMV2663	Marketing & Distribution	2	3
DMV2665	Writing for Non-Fiction Film & Television	2	3
DMV3663	Creative Producing	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

ENVIRONMENT DESIGN

The difference between a good city and a great city is the design and the liveliness of its public spaces. If you believe that our urban spaces can be enhanced to reflect the rich tapestry of lifestyles and culture that exist in the city, if you have the passion and vision to create fresh and exciting external spaces that connect people and places, movement and urban form, nature and the built fabric, then this is the course for you.

"This course sits at the exciting confluence of architecture, landscape architecture and urban design. It equips the students with broad-based knowledge and essential technical skills to comprehend the complex urban issues and environmental challenges, such as rapid urbanisation and population growth, sustainability, biodiversity and climate change.

- Damian Tan
Design Director
National Parks Board
President, Singapore Institute of Landscape Architects

This unique inter-disciplinary course links the fields of architecture, urban design, landscape architecture and environmental technologies. It deals with the design and execution of external spaces like civic plazas, town squares, parks, recreation spaces and neighbourhoods. You will gain insight into the principles of quality design for the environment which has become a major issue in developing and developed nations.

You will be plugged into the latest developments in urban Singapore, exploring the aesthetics of creating urban spaces through the intersection of disciplines and the synthesis of broad perspectives, knowledge and skills. All this will equip you with critical skills to create urban environments that are beautiful, liveable, sustainable and economically-viable.

You will engage in projects that will develop skills such as decision-making, critical-thinking, creative ideation, problem-solving and innovation.

Career Opportunities

The course not only prepares students for a future but provides an extraordinary foundation for a multitude of interdisciplinary and related design fields. When you graduate, you can find exciting careers in companies dealing with architecture, urban planning, landscape architecture, multi-disciplinary practice and parks management consultancies. Or, after acquiring several years of working experience, you may be able to achieve a designer's ultimate dream of establishing your own design practice, offering a range of design services to local and regional clients.

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".

Minimum Entry Requirements

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

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 & 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).

Note: Applicants who have partial or complete colour appreciation deficiency should not apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Core Subjects	: 93 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 122 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DED1801	EVD Project 1	1	6
DED1816	Introduction to Architectural Principles	1	3
DED1817	Sustainable Materials	1	3
DED1818	Architectural & Landscape Drawing	1	3
DED1821	Form & Space Exploration	1	3
DPS1020	Design Fundamentals	1	6
DPS1021	Marketing in Design	1	3
DED2819	Computer-aided Design Drawings	2	3
DED2822	Environmental Elements & Control	2	3
DED2823	Landscape Design Studies	2	3
DED2824	Principles of Plant Design	2	3
DED2826	Urban Design Studies	2	3
DED2827	EVD Project 2	2	9
DED2828	EVD Project 3	2	9
DED3812	EVD Project 4	3	9
DED3813	Eco Design	3	3
DED3820	Digital Visualisation & Presentation	3	3
DED3825	Basic Construction	3	3
DED3710	Professional Practice	3	3
DMP3019	Major Project: EVD	3	12

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

INTERIOR ARCHITECTURE & DESIGN

You buy stacks of magazines on interior architecture designs. You have many creative and exciting design ideas, and love planning the spaces you live, play and work in – whether it is your living room, your neighbourhood library, your bus interchange or your favourite hangout. You look at private and public spaces and think of a dozen ways to improve the environment for the users. We've got a great course that will transform your aspirations into a profession.

"This School has made very good progress in terms of the final-year students' substance, design philosophy and concept, graphic and 3D presentation etc. It is also a good reflection on the teams of course managers, tutors, lecturers, school management staff and those who are involved in one way or another. It is a dynamic, creative and progressive School which I am sure will go even further from here.

- Joseph Lau Tse Kit
Managing Director
Laud Architects Private Limited

You will learn the use of space and its elements within the shells and structures of buildings. And by space, we really mean anywhere that people live and work – home, offices, cinemas, museums, schools, etc. You will learn how to best balance function and appeal in the use of any given space. Not only should your designed space look good, it also needs to function efficiently. Through your many hands-on, problem-based creative projects, you will learn about colours, materials, lighting, media, shapes and forms. You will use these and other tools to shape a specific space while considering the requirements of the project. The course will also hone your ability to communicate ideas through a wide range of presentation media, as very often in the real world, one has to work with a variety of clients with different needs.

If you are someone who enjoys thinking out of the box and conceptualising different approaches and uses of a stimulating and functional environment, this is the course for you.

Career Opportunities

Armed with professional skills to provide interior design services for corporate exhibition, institutional and residential projects, graduates from our course can find careers as designers and consultants in interior design consultancies, design-related businesses or an architect's office. Or, you could easily land a job in event management, exhibition design, interior product design and in-house design for museums and galleries. Many graduates have also realised their dreams of starting their own design consultancies.

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".

Minimum Entry Requirements

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

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 & 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).

Note: Applicants who have partial or complete colour appreciation deficiency should not apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Core Subjects	: 93 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 122 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIA1202	Media Techniques & Presentation	1	3
DIA1204	Digital Architectural Drafting	1	3
DIA1223	Form Exploration	1	6
DIA1226	Materials & Finishes	1	3
DPS1020	Design Fundamentals	1	6
DPS1021	Marketing in Design	1	3
DIA2205	Architectural Design Theory	2	3
DIA2206	Digital Media Visualisation & Presentation	2	3
DIA2222	Portfolio Development	2	6
DIA2223	IAD Project 1	2	6
DIA2228	Construction & Detailing	2	3
DIA2229	Building Codes & Standards	2	3
DIA2234	IAD Project 2	2	9
DIA3225	IAD Project 3	3	9
DIA3230	IAD Project 4	3	9
DIA3231	Museum & Exhibition Studies	3	3
DIA3232	Sustainable Environment	3	3
DMP3020	Major Project: IAD	3	12

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

PRODUCT & INDUSTRIAL DESIGN

You see design in the most surprising or most unexpected of places: an MP3 player that responds to motion, a washing machine small and sleek enough to fit any living room and a life-saving vest that generates electricity and filters water. These cool ideas are not science fiction but international award-winning designs from our students. You too could very well be our next award-winning product designer!

"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
Senior Design Director
Philips Electronics Singapore Pte Ltd

The course teaches and hones design specialists to design specific products and services that enrich our lives. If you want to create interesting and notable products that make life better for users – this course is just right for you.

The course will address design fundamentals and build your entrepreneurial, experiential, collaborative and professional skills further through projects and assignments. Here, you will learn to design with understanding of the end-users and their needs through experiential and human-centred design approaches. You will have to think out of the box and be able to frame innovative solutions with aesthetics and usability. You will be encouraged to pit your skills against others in exciting local and international competitions, as well as to participate in industry-initiated projects.

This course prepares you for the dynamically creative profession where the boundaries and definitions are constantly challenged. There are new and unlimited opportunities in the profession. The Product & Industrial Design course will prepare you well to meet these dynamic challenges in the creative industry.

Career Opportunities

Our graduates are simply needed everywhere. In diverse fields such as consumer electronics, medical products, furniture design, packaging design, transportation design, product merchandising, object/ craft 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.

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".

Minimum Entry Requirements

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

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 & 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).

Note: Applicants must ensure that they do not suffer from complete colour appreciation deficiency. Applicants who do not satisfy the pre-requisite may not be accepted into the course. For safety reasons, applicants must also ensure that they do not suffer from medical conditions such as epilepsy or hearing impairment.

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LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DPD1402	Perspective & Freehand Drawing	1	3
DPD1422	Prototype Methodology	1	3
DPD1423	Concept Sketching & Communication	1	3
DPD1424	Materials, Processes & Trend	1	3
DPD1431	CAID 1	1	3
DPS1020	Design Fundamentals	1	6
DPS1021	Marketing in Design	1	3
DPD2412	Product Engineering Principles	2	3
DPD2419	PID Project 1	2	6
DPD2420	PID Project 2	2	6
DPD2425	Cognition, Emotion & Usability	2	3
DPD2426	Interaction Design Tools & Application	2	3
DPD2427	Service Design Methodology	2	3
DPD2432	CAID 2	2	3
DMP3011	Major Project: PID	3	9
DPD3417	The Business of Design	3	3
DPD3418	Advanced Product Design	3	9
DPD3421	PID Project 3	3	6
DPD3428	Innovation, Science & Technology	3	3
DPD3429	PID Project 4	3	6
DPD3430	Specialisations for Industrial Designers	3	3
DPD3431	CAID 3	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

RETAIL & HOSPITALITY DESIGN

"I am impressed by the level of spatial visualisation skills demonstrated by the students and the comprehensiveness of their major projects, which covered almost the full spectrum of the professional design services. I am inspired by the many works I saw that focused on cultivating a sense of social responsibility among the students.

- Thomas Kong
Associate Professor Director,
Undergraduate Architecture and Interiors
The School of the Art Institute of Chicago
Principal, Studio Chronotope

Whether it is an up-scale hotel or resort, snazzy bar restaurant, happening entertainment hub, swanky boutique or cutting-edge showroom, this course develops your design thinking and teaches you the professionally-driven skills to create these spaces.

In this course, you will undergo a rigorous programme covering spatial design, communication graphics, environmental branding, visual merchandising and the detailing of good interior spaces. You will have your pulse on the trends in leisure, resort, tourism and retail design development in Singapore and overseas. Study trips will give you insight into lifestyle resorts and urban retail and hospitality centres of other countries.

The course teaches you to develop a keen sense of observation, an attention to design detail and the ability to conduct accurate and meaningful research. You will learn the principles of interior design theory, interior environmental technology as well as develop the ability to communicate design ideas and to transform their concepts further to working drawings.

Career Opportunities

Our strengths in graduate employability are a result of the course being aligned to the needs of the industry. Graduates of this course are very much sought after in the built environment design industry. You will be able to work with multidisciplinary design companies, industry-related firms, in project management, as an architectural renderer, space planner or design consultant, or you may even choose to work in interior design and architectural design firms. After acquiring work experience, you could even establish a design practice offering a range of design services and comprehensive design solutions to clients locally and regionally.

Application

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LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3016	Communicating Design Arguments	3	3

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIA1204	Digital Architectural Drafting	1	3
DPS1020	Design Fundamentals	1	6
DPS1021	Marketing in Design	1	3
DRH1701	Architectural Drawing	1	3
DRH1702	RHD Project 1	1	6
DRH1703	Architectural Rendering	1	3
DRH1714	Fundamentals in Design	1	3
DRH1715	Tectonics & Structure	1	3
DRH1716	Design Studio	1	6
DIA3216	Interior Design Practice	2	3
DRH2705	RHD Project 2	2	6
DRH2706	RHD Project 3	2	6
DRH2707	Communication Graphics	2	3
DRH2717	Design Theory & Ideas	2	3
DRH2718	Interior Elements	2	3
DRH2719	Construction & Detailing	2	3
DRH2720	Building Systems	2	3
DMP3016	RHD Major Project	3	9
DRH3708	Digital Modelling	3	3
DRH3709	RH Planning & Design	3	3
DRH3711	Consumer Psychology	3	3
DRH3721	Building Services	3	3
DRH3722	RHD Project 4	3	6

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

Subject Synopses

DAD1101 History of Costumes
This subject introduces you to the history of Western costumes and fashion from ancient Egyptian times to the 21st century. You will explore major art, cultural and social movements which have made significant impact on the evolution of costumes and accessories through the ages.

DAD1102 Fashion Merchandising
This subject covers the characteristics and systems of the apparel industry – the importance of the consumer's influence over trend and fashion prediction, the process from the design concept to the consumer, the apparel markets and business aspects, as well as careers in the apparel industry.

DAD1104 Introduction to Visual Merchandising
This subject covers the principles of window and floor display situations, and the techniques involved in catalogue and storyboard layout, with close references to colour, graphic principles and fashion retail trends.

DAD1140 Fashion Retail Management
This subject guides you in understanding the dynamics of the consumer marketplace and fundamental concepts and issues faced by retailers such as store ownership, merchandise mix, customer target, locality, promotions, etc. You will also be introduced to the several operational aspects of operation management such as store format and size, space allocation, personnel utilisation, store maintenance, inventory management and store security.

DAD1148 Textiles Fundamentals
This subject gives a basic understanding of fibres and yarn in the context of textiles formation. You will be taught the fundamentals of knits and weaves, and to identify fabrics by names through visual identification and their intrinsic characteristics. Your understanding of textiles will encompass production processes, practices and new developments in the industry.

DAD1149 Textiles Manipulation & Design
This subject will bring you to the next level of textiles and surface design. You will carry out your ideas through intermediate design work and find personal ways of designing on paper and fabric. The print shop will be heavily used in exploring the dynamics of pattern through painting, silkscreen printing and dyeing, exploring lines, spaces, shapes, textures, colours on paper and fabric. The use of mixed media together with all aspects of visual research will be demonstrated in sketchbooks, croquis, through to the making of the final product.

DAD1150 Fashion Illustration & Production Drawing
This subject provides you with the skills required to visually present your apparel design ideas to the apparel industry. Fashion illustration will allow the visual expression of fashion design ideas on paper, using idealised fashion figures.

DAD1151 Apparel Production 1
This subject introduces you to the fundamentals of flat pattern drafting as well as to the basic sewing processes.

DAD1152 Basic Draping
This subject introduces basic draping skills as part of your training in apparel construction and production.

DAD1161 Basic Sewing Techniques
This subject equips you with fundamental knowledge on how to operate and handle sewing machines in the apparel industry. It also provides you with the basic sewing fundamentals of construction and techniques in sewing components of a garment in accordance with industrial standards.

DAD1162 Concept Research & Presentation Techniques
This subject introduces you to the essential stages of creative concept research and also provides you with the skills required to present visually and communicate your apparel design ideas effectively to the apparel industry. The skills acquired will be in the areas of concept research and presentation techniques.

DAD1163 Figure Drawing & Production Drawing
This subject provides you with the basic fundamental skills required to present visually the drawn figure as representation of the human form. It is conveyed in the mode of proportion acceptable to fashion designing standards. Production drawing focuses on the technical aspect of the apparel. Basic proportions and design details are translated and presented into neatly rendered technical drawing exercises to enable the pattern maker draft the required patterns for production.

DAD2113 Sourcing & Costing
This subject provides you with an introduction to understanding the global perspective of the textiles and apparel industry, as well as the costing structure of apparel. These are the essential tools for the designer or merchandiser to strategically source for materials and production in countries that have the comparative and competitive edge.

DAD2116 Advanced CAD
This subject offers a broader picture of some of the technological changes that have emerged in the world of apparel and textile. It provides you with a way of integrating this technology in the designing process. The importance of the development process, from concept to consumer, continues to surface in the subject as you explore the various designing software and programmes pertaining to apparel and textiles design, and visual merchandising.

DAD2122 Apparel Manufacturing Process
This subject covers the process of mass production in the apparel industry from preproduction planning to product completion. It relates to issues associated with the concepts of product performance and quality, and the functional organisation of apparel manufacturing firms. It also articulates the involvement of various professionals in product development up to the manufacturing stage and includes field trips to garment factories for you to gain some experience of the working environment in the industry.

DAD2138 Basic CAM
This subject focuses on the application of CAD Accumark software in marker making, gradation of sizes and modification of a basic block to required pattern pieces that relates to the production aspect of the apparel industry.

DAD2142 Fashion Purchasing Management
This subject focuses on every aspect of buying and the roles played by the practitioners. Operating figures such as Open-to-buy, Dollar Planning and Control, Markups / Markdowns, Retail Pricing and Inventory Control are covered.

DAD2144 Pattern Grading
This subject provides a basic understanding, foundational skills and hands-on experience in the manual grading of a basic block to required pattern pieces that relates to the production aspect of the apparel industry.

DAD2147 Apparel Design Projects
This subject provides you the opportunity to integrate the multiple interfaces of apparel design and production training in the development of different collections for the apparel industry. The process will include the conceptualising and production of two different lines of clothing.

DAD2153 Apparel Production 2
This subject builds on Apparel Production 1 in the progressive development of flat pattern drafting techniques and sewing skills. It will also build on your proficiency in operating more complex sewing machines required in the realisation of designs of two collarless tops in lightweight fabrics.

DAD2154 Advanced Draping
This subject covers the advanced level of draping to enable the execution of complex designs.

DAD2155 Visual Merchandising Project 1
This subject provides a platform for you to display design concepts and issues in the area of store planning and fixture design which are used for the visual presentation of products that will enhance sales opportunity in an exhibition or trade show environment.

DAD2156 Visual Merchandising Project 2
This subject provides a higher platform to adapt design concepts and issues in the areas of retail store planning and fixture design for visual merchandise presentation to generate optimum sales.

DAD3127 Quality Assurance in Textile & Apparel
This subject covers the principles of quality the various quality concepts such as Just In Time, Kaizen, Reengineering, Benchmarking and Total Quality Management and the tools used in quality control and assurance. You will have practical lessons on statistical sampling in which you will do a visual garment inspection, a complete inspection report, and conduct tests on textiles and apparel using AATCC and ASTM standards or adapted versions. You will engage in active research and discussion of some common quality issues faced by the industry such as fabric skewing, fabric pilling, colour fastness failure, snaps failure, and wet garment processing.

DAD3157 Apparel Production 3
This subject integrates a sense of professionalism with the development of flat pattern drafting techniques and sewing processes in the interpretation and realisation of more complex designs.

DAD3158 Tailoring
This subject introduces you to the construction of women's jackets and pants suits using mass production methods. The entire process from drafting to sewing will be required to complete the assignments and project.

DAD3160 Events Management
This subject introduces you to project management skills, negotiation, and other challenges. More than just a how-to guide, it also offers insights on communicating your goals and visions effectively to the audience so that every project is in line with brand or company objectives.

DCS1013 Communicating Design Ideas
Effective communication is an engaging experience. This subject covers a range of multisensory, multimedia and language skills. It aims to develop critical reading, research, writing, small group communication and oral presentation skills that design students would require in generating, developing and presenting design ideas.

DCS2014 Professional Communication for Design
Communication that connects and engages plays a critical role in advancing a design professional's career. Beyond developing client and corporate communication skills, this subject enhances the students' personal branding and presence. You will be guided to review your curriculum vitae and portfolio on both online and offline platforms for the purpose of employment and securing of design contracts.

DCS3016 Communicating Design Arguments
The communication element of the design process is the discourse of client needs, design problems and solutions. You will learn argumentative skills and how to apply this in presenting and writing design proposals based on global design issues. This subject focuses on identifying the best way to research and craft a design pitch using effective platforms to showcase written and verbal communication.

DED1801 EVD Project 1
This exploratory project introduces the fundamentals in environmental design and allows you to exercise your creativity in the realm of design in relation to a selected small-scaled external environment. Issues like concept, form, composition and aesthetics are focused upon in this project. You are to produce an experiential urban landscape.

DED1816 Introduction to Architectural Principles
This subject gives an overview of the historic development of architectural styles from antiquity to the modern era. It will also encompass observation of architecture in general and the specific influences on the architecture of Singapore in principle.

DED1817 Sustainable Materials
The subject focuses on the study of materials commonly used in public spaces with emphases on both their functional and visual properties. The subject provides a platform for exploration of surface finishes as an essential component for achieving the intended spatial quality; which at the same time satisfy the current standard of sustainability.

DED1818 Architectural & Landscape Drawing
This subject introduces the various visualisation techniques for architecture and landscape drawings. It covers basic methods of constructing geometric drawings, orthographic projections and perspective drawings

DED1821 Form & Space Exploration
The subject focuses on the sculpting and manipulation of the built form and its implication on the external space. It addresses concepts pertaining to spatial concepts and qualities, resolution of geometry and design principles. You will have the opportunity to explore 3-dimensional forms and develop a set of design vocabulary.

DED2819 Computer-Aided Design Drawings
The subject covers the fundamentals of the use of computer-aided design (CAD) software that is relevant to specific application in the context of built environment studies (eg., architecture, landscape and urban design, etc.).

DED2822 Environmental Elements & Control
This subject introduces the various environmental elements and factors that need to be considered for sustainable, ecologically sound design responding to the environment to achieve user's human comfort.

DED2823 Landscape Design Studies
This subject provides an understanding of landscape architectural principles and its impact on the built and natural environment. You will be introduced to how nature is integrated to the character of built environment and sustainably preserve by appropriate practices of using materials, scale, texture to site context with conscious managing and planning for what is sustainable for the landscape.

DED2824 Principles of Plant Design
This subject provides an understanding of the significance of plants and its roles in shaping the external environment. You will understand how plant forms, habits and types of plants that co-habit affect the design of spaces and ambience in our tropical climate

DED2826 Urban Design Studies
This subject will equip you with the skills and knowledge in reviewing the important factors that contribute towards urban design. You will be introduced to various aspects of urban design and learn to apply urban design guidelines in the local context.

DED2827 EVD Project 2
This project focuses on understanding of site analysis and allows you to be confronted with the physical site condition issues of topography, air, vegetation, drainage; incorporation of universal design, social and cultural identity, biodiversity and landscape sustainability. You will be encouraged to think out of the box while incorporating basic and real issues.

DED2828 EVD Project 3
This project focuses on site analysis processes to explore the responses to a selected site. The project will introduce environmental and physical issues such as sustainability, recycling, conservation; human comfort zone in a tropical environment and technical issues of construction viability.

DED3710 Professional Practice
You will learn about the professional practice of environmental design. You will be introduced to the relevant standards, codes, rules, regulations and bye-laws which govern the practice of environmental design. The subject will help you understand proper procedures prevalent in the office or site environment and exposes you to the different roles and responsibilities of members of the project team. You will be further equipped to contribute towards efficient and successful office, design and project management. You will be made aware of prevalent contractual agreements and contractual obligations which will be part and parcel of your responsibilities in the course of a design project.

DED3812 EVD Project 4
This project focuses on the formulation of innovative and workable ideas to solve urban design issues such as high density living, conservation, image ability and revitalisation. You will be introduced to brief formulation in preparation for the Major Project.

DED3813 Eco Design
This subject introduces you to the bases of eco design, concepts that aid the integration of the built form to the surroundings, and the identification of different aspects of eco-design. You will also learn about new, ecologically sound design ideas through case-studies, and these are illustrated through understanding and application of Eco-design criteria. It will equip you with the skills and knowledge to define key Eco-design concepts, examine and differentiate designs that implemented Eco-design concepts and apply these design concepts in assignments.

DED3820 Digital Visualisation & Presentation
This subject covers the fundamentals of the use of digital visualisation and presentation software and concepts that are relevant to specific application in the context of built environment studies (eg., architecture, landscape, urban design, etc.).

DED3825 Basic Construction
This subject covers a basic understanding of various forces acting on buildings and structures. It gives an overall view of various construction materials and how they are assembled to form built constructs in the external environment.

DIA1202 Media Techniques & Presentation
This subject introduces basic visualisation and presentation techniques for interior architecture and design. It covers basic methods of constructing geometric drawings, orthographic projections, perspective drawings and presentation techniques to effectively represent architectural design ideas, concepts and details.

DIA1204 Digital Architectural Drafting
This subject introduces the fundamentals of Computer-Aided Drafting in generating architectural drawings. It emphasises interior/ architectural conventions and documentation, as well as the fundamentals of architectural drawing.

DIA1220 Space Planning
This subject focuses on understanding of space planning that sets the stage for effective interior environments. It 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.

DIA1221 Colour & Light
This subject covers the theory and application of colour and light to the built environment to create specific responses. It will enable you to make considered judgments in the selection of colours, materials and texture moderated by effect of light, as an integral part of the design process.

DIA1223 Form Exploration
This subject focuses on the shaping of the building form and its implications on interior space design. It addresses issues pertaining to spatial quality, ambience, resolution of geometry, and the manipulation of form and function. Its aim is to provide students with the necessary skills and knowledge to generate forms that are meaningful and applicable to the design of interior architectural spaces.

DIA1226 Material & Finishes
This subject focuses on the study of the range of materials commonly used in building interiors with emphasis on their appropriate selection based on functional and visual properties. It provides a platform for exploration of surface finishes as an essential component of interior architecture and design.

DIA2205 Architectural Design Theory
This subject provides a review of the concepts and associated principal theories of design from the ancient to the modern era. This will then form the basis for a systematic approach to evaluating architectural and interior design through the process of investigation, critical observation, and analysis. These, in turn, provide a degree of explanation on theoretical issues that confront the interior design profession today.

DIA2206 Digital Media Visualisation & Presentation
This subject introduces you to the use of the computer as a design tool in three-dimensional design creation and visualisation to effectively present ideas and concepts in the digital mode.

DIA2222 Portfolio Development
The subject equips you with the knowledge and skills in developing a design portfolio. It explores the means and techniques of design presentations in digital modes. A compilation of effectively communicated design ideas and concepts would form appropriate portfolio for job application.

DIA2223 IAD Project 1
This subject serves as a platform to introduce you to design projects. Exploratory and experimental in nature, it encourages you to develop varying perspectives in design approaches and processes, encompassing design conceptualisation, visualisation and expression of a set theme.

DIA2224 IAD Project 2
This subject introduces you to concept development as a seamless process of design from the inception of a design idea to the resolution of the design process. It focuses on the physical developmental evidences of the design process as the key to externalising conceptual thinking and development.

DIA2228 Construction & Detailing
This subject explains building construction elements, through a comparison of structural and non-structural function, to provide students with understanding of the constructional framework of the building and the parameters within which interior space can be altered and manipulated.

DIA2229 Building Codes & Standards
The subject introduces you to the various regulatory and discretionary building codes and standard to which design proposal must conform or adhered. It highlights recommended guidelines, and explains procedures for project applications to the relevant authorities.

DIA3216 Interior Design Practice
The subject equips you with the fundamentals of the interior design profession in relation to its management within the regulatory and legal framework of the practice. It also provides you with an operational framework in managing a design project. You will be exposed to the pertinent codes and standards in the building industry so as to be able to interpret and apply them in relation to interior design practice. This subject will be conducted totally online.

DIA3218 Retail Design
This subject introduces the basic principles and approaches to the design of spatial and physical elements in a retail interior, from conceptualisation of retail themes and images to the practical detailing of lighting, displays and fixtures. It explores the critical issues of retail design as they relate to the successful integration of design, commerce and consumer behaviour through the development and deployment of the appropriate visual language for the retail environment.

DIA3225 IAD Project 3
This subject takes an issue-driven approach through which you will be given opportunities to explore issues pertaining to interior architecture through collaborative inquiry, investigation and critical thinking.

DIA3230 IAD Project 4
This subject takes on a more socially conscious approach to Design that involves addressing issues such as conservation, sustainable design, and temporary environments. Examples of project types may include health and elder care, communal spaces and exhibitions.

DIA3231 Museum & Exhibition Studies
The subject intends to develop an understanding of the various approaches in developing concepts for permanent and temporary exhibitions in museum and event promotion. You will learn how to develop space, structure, identity and image of an exhibition in an effective communicative environment.

DIA3232 Sustainable Environment
The subject deals with the relationship between the built interior space, materiality and environmental performance, and how this evolves in response to climatic conditions and emerging approaches in sustainability.

DIM1345 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. 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.

DIM1366 Interactive Studio: Web
This subject introduces you to the basics of designing interactive media for the Web. You will learn the basics of Web authoring using HTML editors 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. A foundation will be given for the understanding of basic programming and scripting techniques that can enhance the interactivity of Web projects.

DIM2367 Interactive Studio: Web 2
This subject builds upon Interactive Studio: Web. You will apply the basics of designing interactive media for the Web. You will learn the advanced techniques of Web authoring using HTML editors and other interactive application software. You will also be able to prepare rich media for multimedia projects, such as video, audio, interactive menus and moving visuals. You will be able to apply these elements together with advanced authoring techniques to enhance the interactivity of Web projects.

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.

DIM2369 Interactive Studio: Media
This subject will focus particularly on the development and integration of multimedia content in the area of web infotainment. The subject will cover rich media integration at an advanced level, and the development of rich Internet applications using appropriate development tools. The aim of this subject is to explore and push the limits of digital interactivity, with a focus on the online infotainment experience.

DIM2370 Interactive Studio: Media 2
This subject aims to develop critical and practical skills appropriate for expanding the understanding of the creative possibilities of advanced design and authoring to maintain large-scale, interactive web sites with consideration to visual design, usability, audio and video integration, on-going site management, and web accessibility.

DIM2371 Interface Design
This subject introduces 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.

DIM2376 Interactive Project
This subject takes the form of a project and enables you to apply and consolidate knowledge acquired in other subjects. You will work in teams and produce an interactive media project. Through this subject, you will further develop the understanding of the design process, research skills and the application of fundamental design principles.

DIM3372 Studio Project 2
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.

DIM3373 Interactive Studio: Beyond Screen
This subject allows you to experiment and explore current or emerging trends in interaction design. You will be encouraged to explore and push boundaries using visual, audio and tactile interaction for the display of digital content on various mediums both on screen and beyond.

DIM3374 Interactive Studio: Mobile Devices
This subject introduces the design of applications and interfaces for mobile devices. You will apply design principles to small-screen interfaces and develop application prototypes for mobile devices. You will be encouraged to analyse and anticipate trends in mobile devices and applications.

DIM3375 Advertising Media 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. Understanding 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.

DMP3011 Major Project: Product & Industrial Design

This subject introduces you to a self-initiated project that includes a written thesis on the rationale, design research approach and personal design viewpoints. The design and development process will be systematically recorded in a journal which will evolve into a detailed thesis. It covers a wide spectrum of design issues from anthropological, social, cultural, market behaviour, human factors and technology in the upstream processes to the downstream production processes of CAD simulation, prototyping, product testing and user feedback.

DMP3012 Major Project: Apparel Design & Merchandising

This project provides you with the opportunity to integrate the multiple aspects of the discipline of your choice i.e., Apparel Design & Merchandising or Retail & Visual Merchandising in a self-initiated project. You are to initiate, research, plan and execute an individual body of work showcasing conceptual thinking and proficiency in areas of their choice in greater depth. Through this project, you will gain an up-to-date working knowledge of professional practice and at the same time produce a well-articulated, original and industry-ready portfolio which is reflective of your professional aptitude.

DMP3016 Major Project: Retail & Hospitality Design

This subject provides the framework for you to experience a self-initiated and comprehensive interior design project related to the field of retail and hospitality design. The scope of the subject includes the inception and exploration of design ideas and concepts within a specific context.

DMP3019 Major Project: Environment Design

This subject provides 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 fields of architecture, landscape architecture and urban design. The scope of the subject will encompass various phases of the design process from inception to design development and detailing.

DMP3020 Major Project: Interior Architecture & Design

This subject provides the framework for the organisation, management and coordination of a design process based on a self-initiated and comprehensive interior design project brief. The scope of it 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 process leading to an appropriate interior design outcome.

DMP3021 Major Project: Digital Film & Television

This subject takes the form of a final project. It allows you to propose one that showcases the abilities you have developed throughout the course, reflecting your specialisation. You will utilise ideation techniques to arrive at a project idea, develop your own scripts, storyboards, sound and time plans to support your project idea within presentations. You will be given freedom to develop your projects within a supervisory relationship with your lecturers. In addition to developing your project, you will document and reflect upon your project outcomes.

DMP3022 Major Project: Communication Design

This subject entails you initiating a self-directed design project that showcases the skills you have developed throughout the course. This final project focuses on a design discipline that reflects your area of specialisation and personal interest. You will produce a range of design solutions that expresses your creative independence, critical conceptual thinking and industry-ready design skills.

DMV1601 Creative Storytelling

This subject looks at how to express an idea through a story that an audience will find engaging. You will be introduced to elements such as story structure, character(s) and conflict to build your story from. You will also be exposed to the various tools of story development as well as the different ways stories can be told.

DMV1604 Camera & Lighting

This is a basic subject in electronic cinematography foundation techniques. You will be taught the operational basics of camera and lighting equipment, exposure and lighting techniques, and visual composition. You will also learn the essential job descriptions and division of labor that an efficient film crew requires.

DMV1656 Basic Video Project

This module takes the form of a production project that allows you to apply and consolidate your academic and vocational knowledge to date, culminating in a video clip, based on a given script. You will practice your visual narration techniques, pre-production, production and post-production techniques and teamwork.

DMV1657 Idea Incubation

This subject explores techniques that help you with the conceptualization of story ideas for the film and television mediums. Topics covered include brainstorming of ideas from life experience, environment and encounters to the identification of a good idea and development of an idea into a simple storyline.

DMV1659 Introduction to Directing

In this subject, you will learn 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 you to basic audio recording techniques, studio equipment setup, recording process and microphone techniques. Through these learning processes, you will acquire the vocabulary, basic location recording skills, producing and mixing techniques.

DMV2611 Video Editing

This subject introduces you to non-linear video editing with the principles and grammar of editing to be introduced and further developed. You will also practice and develop the skills-sets of an editor.

DMV2644 Project Pitching

You will learn how to "pitch", or how to sell or market, your projects. You will learn how to prepare the basic budget and schedule documents, and creative documents such as a story outline and treatment, visual references and trailers.

DMV2645 Production Planning & Management

This subject aims to teach you the skills that are required in pre-production planning. They include budgeting, scheduling, location scouting and casting. You will also learn how to manage a production efficiently and timely, as well as put together the necessary documents after you have finished post-production.

DMV2646 Advanced Editing

This module offers an in-depth insight into the process of post-production. You will learn about media management during post, integrating projects across different platforms, creating advanced color effects and compositing. The subject will equip you with advanced skills that editing professionals need to know with hands-on projects and technical and aesthetic lectures.

DMV2647 Directing

This subject introduces you to 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, and work with actors.

DMV2648 Cinematography

This subject builds on the skills acquired in the Camera & Lighting subject. You will learn advanced lighting theory and techniques, camera placement, camera angles, camera movement and lens choice, as the bases towards telling a good story.

DMV2657 Documentary Project

This subject takes the form of a project to encourage your application of the various skills set such as scriptwriting and project management to the production of a video with non-fiction content. It aims to develop your ability to apply audio visual narrative techniques and integrate the knowledge acquired in other subjects to a video production.

DMV2658 Short Film Project

This subject takes the form of a project and allows you to fully utilise the understanding and abilities developed over the previous areas of the course to produce a project in a Fictional Narrative Form. You will define a film genre and utilise project planning and management skills to bring the project to completion. You will develop project management and research processes and strategies in relation to your option discipline.

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. You will apply and develop your design and technical skills to direct and produce a programme segment in a controlled setting. They include producing and directing different programme formats, pre-production and production tasks, simultaneous camera direction and instantaneous vision mixing.

DMV2662 Production Design in Film & Television

In this subject, you will learn how Production Design is crucial to the look of a film. You will be 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. You will learn how to develop a marketing plan and come up with creative ideas on how to sell your film.

DMV2664 Overview of Non-Fiction
This subject introduces a variety of non-fiction television programmes such as documentary, docudrama and reality television. Through screenings and discussion, you will develop a critical understanding of the research and creative approaches involved in developing non-fiction genre.

DMV2665 Writing for Non-Fiction Film & Television
This subject covers the application of scriptwriting principles and skills to the documentary and non-fiction genres. You will learn how to integrate interviews and narration to develop an audio-visual script that delivers a strong message or story.

DMV2666 Film Genre
Film Genre introduces the various genres of film that we are familiar with and provides you with an understanding of film structure as a medium of emotional communication. You will be exposed to the narrative techniques of the different genres as well as the semiotics behind film elements.

DMV2667 Audio Post
This subject introduces you to audio post-production, a process of creating the soundtrack for any visual sequence. Both technical and creative aspects will be emphasised. Through these learning processes, you will acquire the skills necessary for the creation of a professional audio soundtrack.

DMV3626 Screen Writing
This subject introduces you to the craft of screen writing for the fictional genres. It will provide you with an understanding of the principles of visual storytelling for the screen and the process of writing a screenplay.

DMV3659 Advanced Video Project
This subject takes the form of a project and allows you to fully utilise the understanding and abilities developed over all the previous areas of the course to produce a video of either the fictional narrative or non-fictional genre. You will define a video piece initially, and utilise your creative, technical and project planning and management skills to bring the project to completion.

DMV3660 Content Evolution
This subject challenges you to explore the numerous and new media platforms that can be used to broadcast videos and carry out marketing campaigns. You will discover the possibilities of adapting your film projects into content for online and mobile users.

DMV3661 Advanced Directing
In this subject, you will be exposed to advanced directing skills such as in-depth methods of working with cast and the skills required to bring out performance. You will also study the styles of renowned directors' and their different directing techniques and develop abilities in visual storytelling.

DMV3662 Reflections on Global Perspectives
This subject introduces you to various issues such as globalisation, the aging population and how technology is changing the society and human perceptions. You will be exposed to world issues that will help you broaden your general knowledge and develop you as a holistic filmmaker.

DMV3663 Creative Producing
This subject covers advanced producing skills in the film and television industry. You will learn the responsibilities of the executive producer and the techniques of creative producing in a video production in order to enhance the narrative in a script and improve on the storytelling in a final film.

DMV3664 Cinematography
This subject will cover advanced lighting theory and techniques, camera placement, camera angles, camera movement and lens choices. You will build on the skills you have learnt in Camera & Lighting as well as Camera & Aesthetics to enhance the visual treatment of a film.

DPD1402 Perspective & Freehand Drawing
This subject emphasises drawing through observation, using basic drawing media. It provides experiences gained from exploring and viewing the physical environment and development of the drawn image. The drawing sessions will generally be based on freehand drawing, placing special demands on seeing/ perception (eyeballing), scale, composition and perspective.

DPD1422 Prototype Methodology
The subject explores the different fidelities of prototypes, machineries/tool and the necessary planning to construct prototype. You will learn how to define the requirements and limitation of the different types of prototype and construct it based on the resources available.

DPD1423 Concept Sketching & Communication
This subject develops a range of presentation techniques and skills to produce strong and informative design concepts. You will experiment and try out different techniques, media and digital tools to effectively enhance and communicate the design ideas.

DPD1424 Materials, Processes & Trend
This subject explores how trend plays a part in defining creative use of materials. You will explore and define new application of materials and its production processes. You will also learn how and what to specify on the finished models or prototypes.

DPD1431 Computer-Aided Industrial Design 1
This subject introduces the fundamentals of vector, pixels and their properties. The generation of high-quality 2D industrial design digital rendering will be taught using graphic software.

DPD2412 Product Engineering Principles
This subject deals with the understanding of product systems involving prime movers, input and output devices, and energy storage devices. You will be introduced to basic mechanical engineering, basic structural engineering and basic electrical and electronics engineering.

DPD2419 Product & Industrial Design Project 1
This project looks at design methodology, with an emphasis on research, problem identification and analysis, and simple problem-solving. Sketch ideas generated on paper will be translated into coloured renderings and general assembly drawings with the aid of maquettes and mockups, using a variety of media and workshop technologies. Issues of functionality, practicality and product semantics and aesthetics will be discussed and refined.

DPD2420 Product & Industrial Design 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.

DPD2425 Cognition, Emotion & Usability
This subject explores how emotion interacts with and influences other domains of cognition, in particular attention, memory, and reasoning. The psychological consequences and mechanisms suggest more in-depth design resulting better use and usability.

DPD2426 Interaction Design Tools & Application
This subject covers the practice of designing interactive digital products, environments, systems, and services. You will synthesise and imagine objects as they might be through the interaction design tools and application.

DPD2427 Service Design Methodology
This subject covers the methods and tools to control new elements of the design process, such as the time and the interaction between user and service provider. Together with the traditional methods used for product design, you will understand the behaviour of the users, their needs/ motivations and inform changes to an existing service or creation of new services.

DPD2432 Computer-Aided Industrial Design 2
The subject introduces the fundamentals of curves, NURBS (Non Uniform Rational B-Spline) surfaces and its properties. The generation of high quality industrial design 3D models will be taught using interface and tools like Computer Aided Industrial Design (CAID).

DPD3417 The Business of Design
This subject introduces the form and structure of various business organisations, financial and accounting issues, legal aspects (contractual agreements, design fees, taxes, trademarks, patents and copyrights), promotion, sales and the building of personal portfolio and credibility. It also gives a contextual understanding of the professional practice of design in an entrepreneurial environment.

DPD3418 Advanced Product Design
This subject introduces you to professional design standards on projects varying from large structure/ systems to mass-produced consumer durables. You will analyse current social-economic issues and evolve self-motivated design research that will lead to innovative and creative solutions. This subject adds to your accumulation of a professional portfolio for use when you seek commercial employment.

DPD3421 Product & Industrial Design Project 3
This project introduces you to a professional level of work attitude and design standards on projects varying from large structures and systems to mass-produced consumer durables. You will have to demonstrate your ability to internalise current socioeconomic issues and evolve self-motivated areas of design research that lead to initiation of design problem-setting. You will also need to evaluate and test your design solutions.

DPD3428 Innovation, Science & Technology
This subject discusses how the influence of science and technology affect design and vice versa. You will be exposed to the innovation behind these domains and also the processes involved from creation to the protection of your ideas.

DPD3429 PID Project 4
This project looks at design methodology, with an emphasis on collaborative work model. You will be challenged to work in cross-disciplinary groups within the school or with external organisations. The process will include research, problem identification and analysis, and solution framing.

DPD3430 Specialisations for Industrial Designers
This subject will expose the case studies of emerging segments in Industrial Design and addresses the challenges in the different specialisations. You will learn about the emerging/ potential market for industrial designers and the competitiveness of design in the global context.

DPD3431 Computer-Aided Industrial Design 3
This subject covers methods of prototyping relative to Computer-Aided Industrial Design process. You will be taught how to prepare and produce high quality prototypes using the appropriate prototyping technologies and application.

DPS1020 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.

DPS1021 Marketing in Design
This module introduces you to the definitions and practice of Marketing in Design with a focus on people, spaces and interactivity. It provides an understanding of the scope and purpose of marketing and its integrated role within the design process. The module enables you to develop processes to identify the target audience, understand the clients and brands and understand the competition of the marketplace. The module also covers the fundamentals of marketing research methodology through field work such as simple field interviews, data analysis, comparative analysis and matrices. Most salient is the exposure to the language of marketing and its relevance to designers in the business 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 touchpoints.

DRH1701 Architectural Drawing
This subject introduces the various visualisation techniques for architectural drawings. The topic covers basic methods of constructing geometric drawings, orthographic projections and perspective drawings necessary for communicating a successful design presentation.

DRH1702 RHD Project 1
This subject serves as a platform to introduce you to retail and hospitality design project. Exploratory and experimental in nature, it encourages you to develop varying perspectives in design approaches and processes, encompassing design conceptualisation, visualisation and expression of a set theme.

DRH1703 Architectural Rendering
The subject introduces various rendering techniques for illustrating interior space design intent. As an integral part of the design process, the subject leads you to make considered judgments in the selection of appropriate rendering media to best visualise the design intent of all components that shape the interior space.

DRH1714 Fundamentals in Design
This subject covers the basic fundamentals of spatial design from the massing and sculpting of built forms to its implications on interior space design, and how ergonomics and anthropometrics impacts the spatial content. It will equip you with the knowledge and skills to apply principles of geometry and integrate your understanding of basic measurement of human proportion for spatial proposals.

DRH1715 Tectonics & Structure
The subject introduces you to the expressive nature of architectural tectonics in the built environment. It also delves into the contributing factors such as the client's programmatic requirements and advances in building technology which influences the designer's concept, design process and creation of significant building examples which exhibit qualities of architectural tectonics.

DRH1716 Design Studio
This project introduces the principles used to stimulate creativity and ideas in spatial design. It focuses on the physical developmental evidences of the ideation process as the key to externalising conceptual thinking and development. This is a platform for you to be exploratory and experimental in the process of sculpting forms that leads to the development of spatial design.

DRH2705 RHD Project 2
This subject introduces you to concept development as a seamless process of design from the inception of a design idea to the resolution of the design process. The subject focuses on the physical developmental evidences of the design process as the key to externalising conceptual thinking and development in retail and hospitality design.

DRH2706 RHD Project 3
This subject focuses on understanding of the retail and hospitality design profession and learning to apply areas related to branding, display, graphics/ signage, lighting, space planning, consumer culture and trends, etc. You are required to generate design solutions to address the above.

DRH2707 Communication Graphics
This subject covers the different types of graphics and graphic design in relation to the interior and exterior built environment. Communication graphics is a creative science that integrates two- and three-dimensional graphics in the built environment for functional and aesthetic purposes.

DRH2717 Design Theory & Ideas
The subject equips you with the knowledge to understand the thinking, influences and conditions affecting the shaping and design of significant interior spaces. It covers an overview of theories and ideas in relation to interior design, furniture, fittings and accessories.

DRH2718 Interior Elements
The subject covers the theory and application of light and colour to the built environment to elicit specific responses from the areas of the space. The subject leads you to make considered judgements in the selection of natural and artificial light, colours, materials and texture, as an integral part of the design process.

DRH2719 Construction & Detailing
This subject covers interior design convention, specification, the detailing of materiality and tactility, and how the interplay of design decisions impact upon interior elements. The subject aims to equip you with the knowledge and skills to explore the practical assembly and construction aspect of interior design components.

DRH2720 Building Systems
Building Systems provides an overview of service elements needed to facilitate the smooth running of buildings and their interiors and to further provide for the comfort, health and safety of the users. The subject aims to further equip you with an awareness and understanding of fire safety requirements, escalators and lifts, security, telephone and IT communications and intelligent building systems.

DRH3709 RH Planning & Design
This subject introduces the basic planning and design principles of retail and hospitality spaces. Influencing factors such as retail strategy and user experience will be covered. You will relate analyses of the latest retail and hospitality developments to retail trends and user behaviour by applying your understanding of the planning principles and the use of graphic thinking tools.

DRH3711 Consumer Psychology
The subject is a study on the fundamentals of the principles of consumer psychology to be applied in the context of retail and hospitality design projects. You will learn to develop an appropriate atmospheric expression in the retail and hospitality design proposals, whilst considering consumer behaviour, market segmentation and environmental elements.

DRH3721 Building Services
This subject gives you awareness of the importance of building service elements in providing thermal comfort, air-conditioning, sound and noise control, sanitary systems, water and power supply to occupants of buildings. It also highlights the need to comply with the regulatory requirements of the relevant statutory authorities when dealing with such building service elements.

DRH3722 RHD Project 4
This subject focuses on the issue-driven approach. You will be given opportunities to explore issues pertaining to construction in the realm of retail and hospitality though investigation and studies. You will also be required to generate design solutions to address the identified issue or topic chosen.

DSI2019 Student Internship Programme
The student internship programme provides students with the opportunity to relate their academic learning in the course of study to a relevant work environment. It allows them to gain a perspective of work life and to understand the attributes expected by the employers.

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.

DVC1579 Narrative Photography

This subject deals with the narration of a story through photographic images. It compares the effectiveness of a group of photographs to tell a story or a topic within a concept with the different interpretations that a single picture may bring about. This will also include situations found in photojournalism, photo essays or documentaries.

DVC2518 Information Design

This subject teaches you to visually consolidate and explain information in visual form. It requires you to organise, frame and synthesise text information and translate these into visual flow that allows the reader to grasp the information easily. The design of this information can take the form of graphical and iconic creation. The end outcome is to create visually interesting graphics that appeal and also inform.

DVC2552 Expressive Illustration

This subject focuses on character setting as an essential component of a narration and its production requirements for the editorial and illustration book markets. It introduces the essential skills and practical knowledge for creative ideation as well as to gain greater confidence in producing industry-ready portfolios.

DVC2553 Studio Lighting

This subject introduces you to the Lighting Studio. You will learn the various types of lighting techniques for portrait, fashion as well as product in order to take charge effectively in the studio. You will also learn the use of umbrella, soft box, cone, snoot, reflectors, block cards, and other equipment.

DVC2561 Alternative Photographic Techniques

This subject introduces you to film processing, enlargement using RC and FB papers, other alternative photographic processes including hand-applied emulsions of Cyanotype, Van Dyke Brown and other non-silver processes. You will explore other experimental photographic techniques in colour and black and white. This subject will enhance your ability to visualise beyond using the camera and also broaden your range of creative expressions through the different processes taught.

DVC2565 Typography 2

Typography and layout knowledge will be rigorously applied to particular contexts and design systems, allowing the individual nature of the project content and audience to start influencing and determining their typographic choices.

DVC2566 Prepress & Applied Techniques

This subject gives knowledge of how graphic design is prepared for the printing process. Topics include prepress preparation of artwork, different printing methods, paper choices and binding techniques. This knowledge is crucial in getting design solutions well prepared for a smooth production process, enabling the design to be realised in the printed form.

DVC2567 Publication Design

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.

DVC2568 Digital Imaging Techniques

This subject covers the area of image enhancement and manipulation with the use of imaging software. With digital technology a new principle in imaging has been produced, where the image can be and will be recreated using imaging software such as Photoshop. It requires you to re-evaluate such fundamental concepts as realism and representation in the imaging context, and how this relates to a computer network media.

DVC2572 Tactile Design

You will explore beyond common reproduction techniques when crafting your final design solution. New techniques may include silkscreen printing, lino/ woodblock printing, etc. The tactility of materials chosen for print will also be explored and experimented to allow for more innovative use 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.

DVC2574 Advertising Communication

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.

DVC3556 Digital Illustration

This subject explores and defines the visual formulae that occur in popular images. You will then reinvent and tweak these formulae, while developing your own personal voice. We will strive for innovative, edgy solutions to problems, and discuss how an artist can produce marketable art for the mainstream while not compromising his or her aesthetics. Particular attention will be paid to issues of scale, period styles, tracing post-modern sources, and subculture genres. You will combine your own drawn and found materials with the use of Adobe Photoshop and Illustrator.

DVC3569 Landscape Photography

The subject examines the area of photography concerned with the environment as expressed by photographers, artists and documenter. It will explore the history of this subject, from early explorative photographers to the modern genre. The technical and creative aspects of landscape and cityscape photography will form a basis for practical work.

DVC3570 Fashion Photography

This subject focuses on imaging of the human form and costumes and the way it relates to the fashion industry. It examines the approach to imaging the fashion industry, and every element that creates fashion: trend and styling, hair and make-up, location, lighting, model behaviour. You will explore issues pertaining to the fabrication of the fashion statement. It also introduces the concept of the fashion story within fashion imaging and its editorial significance in fashion news.

DVC3571 Conceptual Imaging

This subject requires you to seek an alternative understanding and interpretation through imagery derived as a result from using aids such as poems, stories, music, philosophies, paintings or by any other initial form. This subject encourages you to explore non-conventional forms of solution in design, but rather using the methods normally used in fine art to solve the problem thus creating a "new vision" or sometimes known as personal statement.

DVC3575 Beyond Print

This subject aims to broaden your means of communication and persuasion for a product or topic beyond the printed medium. It will provide you with the edge to have a creative approach to design problems that may include interactive digital outputs and other platforms, media and formats that best bring across the design expression.

DVC3576 Branding Design
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.

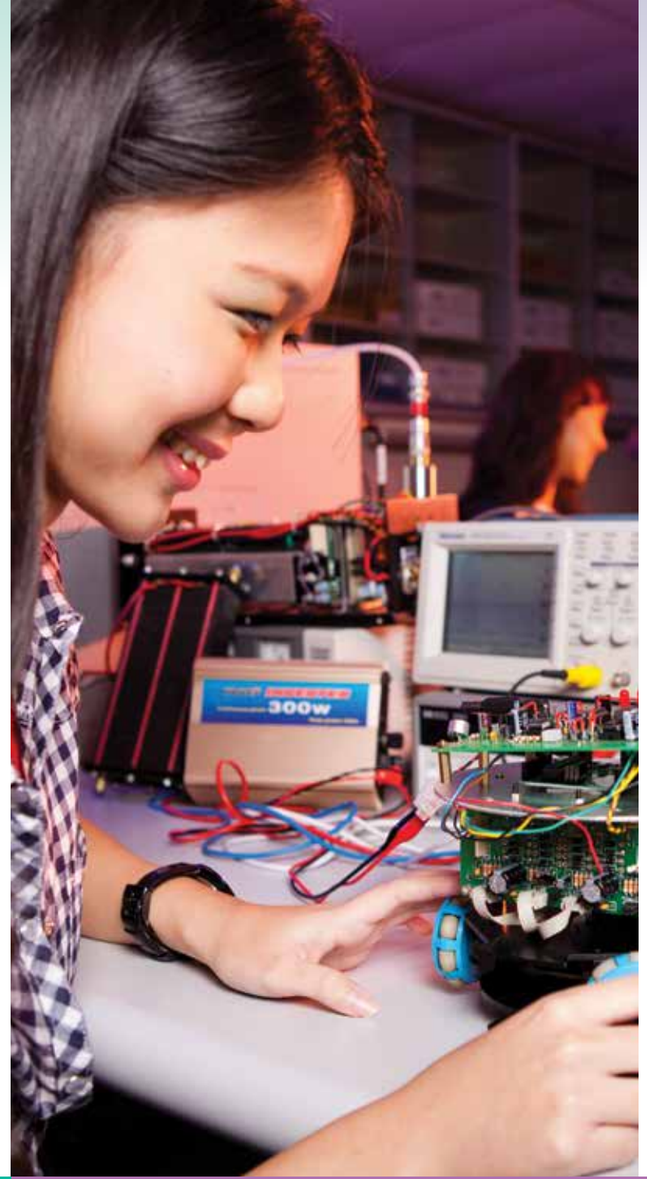
DVC3577 Narrative Illustration
This subject introduces you to the classic plot structure as well as the use of sequential image settings. You will learn the techniques and knowledge required to create illustrations suitable for narrative formats such as storyboards, graphic novels, comic book, manuals and picture books. You will also learn the techniques of conceptualisation, ideation and graphic composition through this sequential image-making process.

DVC3578 Explorative Illustration
You will be encouraged to develop your own approach and methodology in your illustration work process. This subject emphasizes the modern world of illustration, and its many forms and opportunities. You will expose and explore the multiple illustration medium, techniques, media and styles, with an emphasis on original and spontaneous composition, to create an explorative piece of illustration.

DVC3580 Packaging Design
This subject teaches you to design strategically for the shelf space by investigating opportunities, competition and brand positioning for the product. You will learn packaging design principles and design packaging graphics that engages the consumer and communicates a clear brand promise and a personality that expresses the brand.

LEA1001/1002/1003 Leadership: Essential Attributes & Practice (LEAP)
This is a Leadership & Character Education programme that comprises three core subjects – LEAP 1, 2 and 3. It seeks to cultivate in students the dispositions (i.e. attitude, skills and knowledge) towards the development of their leadership competencies. It is a leadership programme that enables students to develop leadership life-skills that embrace character as the core foundation for their leadership credibility and influence.

** This is not an exhaustive list of subject synopses. The subjects listed and their contents may change in view of relevance and currency. The information is correct at the time of printing and may be subject to change.*



SCHOOL OF ENGINEERING

Contents

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 15 exciting diploma courses and three 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. The electives/ options/ specialisations offered in our courses were 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. Seven Centres of Excellence have been set up to 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 an automated wearable peritoneal dialysis device for treating end-stage renal disease (ESRD) patients. The Centre also aims to provide the Medical Technology (MedTech) industry with the technological know-how for commercialisation as well as the expertise in biomedical regulatory compliance.

Temasek Aviation & Aerospace Centre

The Centre provides aviation/aerospace related consultancy services and engages in collaborative industry-focused applied research and development projects. Its core competencies are in the areas of business and operations optimisation, competency based training, aerospace composites and repair, UAV composite airframe design, simulator sub system integration and development, as well as UAV control systems. Equipped with state-of-the-art training and research facilities, the Centre aims to collaborate with like-minded industry players and training institutions to further the industry's technological, human resource development, safety and economic goals.

Clean Energy Research Centre

This is the leading research centre in Singapore providing clean energy solutions for sustainable urban living. The Centre focuses on clean energy generation, energy storage, and efficient power management and distribution for a variety of industrial applications such as portable power, electric vehicles and distributed generation. The Centre has full design and fabrication capabilities in fuel cells and power electronics, as well as state-of-the-art equipment for conducting applied and industry-relevant R&D. Today, the Centre is a preferred partner for developing cutting-edge technologies and is also a specialist training centre for the emerging renewable energy industry. Our partners include major industry players Toyota Tsusho and ST Engineering.

Infocomm Solutions Centre

This Centre focuses on core technologies involving enterprise web services and solutions, network technologies, mobile applications and digital media development. It aims to proliferate and develop these technologies for R&D, training and industry collaboration. The Centre seeks to continually renew and align itself with IDA's iN2015 initiatives, and has successfully partnered consortiums led by industry champions in various Calls for Collaborations (CFC) such as Connecting the Community CFC (2004), Healthcare CFC (2006), FutureSchools@SG CFC (2008) and Learning On the Move CFC (2010). Some of the Centre's key collaboration partners include the Infocomm Development Authority of Singapore, Microsoft Singapore, ST Electronics (Training & Simulation Systems) Pte Ltd, and Panasonic Systems Asia Pacific.

Interactive Digital Centre Asia (IDC Asia)

IDC Asia provides creative and innovative 3D solutions for the Interactive Digital Media (IDM) landscape in Singapore and the Asia-Pacific region. The Centre undertakes use-inspired applied research in emerging fields of 3D media technologies, specifically in primary areas such as interactive glasses-free 3D display technology and 2D-to-3D digital content conversion, to create strategic value innovations for the industry. Set up in November 2007, the Centre's key role is to help various industry sectors such as engineering, architecture, transportation, media and education, to adopt value-added IDM solutions so as to gain a competitive advantage in their businesses. The Centre's partners are key industry players and leading research institutes.

Microelectronics Centre

Microelectronics is at the core of the modern industry and has penetrated into almost every aspect of modern living. This Centre continuously updates and aligns capabilities in micro and nano standards while focusing on the main areas of micro-fabrication, solar cell, solid state lighting, sensors, and nanofabrication, which combine the top-down (etching) and bottom-up (self-assembly) strategies. This Centre has the capability to produce bulk silicon solar cells in small volume, with development efforts in thin film solar cell technology, dye-sensitised solar cell technology, and printing (organic and inorganic) solar cell technology. In solid state lighting, the focus is on quality substrate, novel process in device fabrication, optical design and heat management in packaging, with emphasis on lighting application. In the field of sensors, the Centre focuses on the mechanisms of converting non-electrical quantity into electronic signal, with primary emphasis on biochemical reaction in biosensors.

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, programmable/ motion control for automation, machine vision, process control and simulation.

3D INTERACTIVE MEDIA TECHNOLOGY

"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

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 interactive 3D 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.

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. The worldwide digital media market is projected to grow in value from $1.6 trillion today, to $4 trillion by 2015. In Singapore, the government has also set aside $500 million for research and development in IDM, spurring new job opportunities.

You can choose to be involved in front-line sales and marketing, or be a 3D content-developer or trainer in the exciting IDM industry.

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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from partial or complete colour vision deficiency or severe vision impairment.

** SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 102 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Course Structure

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESE1006	Computer Programming for Problem Solving	1	4
DNG2371	Interface Design	2	3
EBM2004	Project Management	2	4
EBZ2003	Engineering Economy	2	4
EDM2007	Fundamental 3D Interactive Digital Media	2	5
EDM2004	Advanced Digital Animation & Special Effects	2	4
EDM2005	Interactive Digital Media Project	2	6
EED2008	Product, Process & Computer Aided Design	2	4
EDM3001	Advanced Interactive Digital Media	3	4
EDM3002	3D Real-time Visualisation	3	4
EDM3003	Interactive 3D Display System	3	4
EED3013	Rapid Prototyping & Model Making	3	4
EMP3001	Major Project	3	12
ESE3001	Database Management System & Design	3	5
ESE3006	ASP .NET Web Programming	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
EMA3001	Higher Engineering Mathematics	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

AEROSPACE ELECTRONICS

"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

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. 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 only 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 Higher Aerospace Training in your final semester of study, to get that coveted Private Pilot Licence (PPL).

Career Opportunities

Singapore is today the most comprehensive aerospace maintenance, repair and overhaul (MRO) hub in Asia, accounting for a quarter share of the region's MRO output. In 2012, the Boeing Pilot & Technician Outlook projected a need for approximately one million additional personnel to fly and maintain these airplanes by 2031. This includes 460,000 new commercial airline pilots and 601,000 highly skilled maintenance personnel, which is good news for someone aspiring to work in this industry.

You will be highly sought-after as aircraft maintenance engineers, aircraft electrical system specialists, avionics design and development engineers, avionics system specialists, or avionics test engineers. Career opportunities abound in the field of aircraft maintenance, repair and overhaul, avionics testing and measurement, the design, development, manufacturing and technical sales of aircraft systems and components, or aerospace engineering support and services.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: min 10 credit units
Cross-Disciplinary Subjects	: min 9 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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from partial or complete 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EAE2002	Aviation Legislation & Human Factors	2	4
EAE2003	Aircraft Electronics & Servomechanisms	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EAE3006	Radio Fundamentals & Navigation Systems	3	5
EAE3009	Basic Aerodynamics	3	3
EAE3018	Aircraft Digital Systems	3	5
EMP3001	Major Project	3	12

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECT2001	Circuits & Control Systems	2	5
EAE3011	Aircraft Structures & Flight Control	3	4
EAE3012	Aircraft Test & Measurement	3	3
EAE3013	Higher Aerospace Training	3	10
EAE3017	Engine Control & Instrumentations	3	4
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EMC3002	Embedded Control & Applications	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. They are taken in addition to the diploma elective subjects.

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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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.

"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)

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 only 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 Higher Aerospace Training in your final semester of study, to get that coveted Private Pilot Licence (PPL).

Career Opportunities

The aerospace industry in Singapore has been growing at a compounded annual growth rate of over 10 percent since 1990. In 2012, the industry achieved a record output of over S$8.8 billion, and employed over 19,000 workers. Singapore, which is the regional leader in aerospace maintenance, repair and overhaul (MRO), as well as manufacturing and R&D, definitely benefits from this.

The rapid growth of the aerospace industry will create a strong demand for skilled aerospace professionals in the next few decades. 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 Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 98 credit units
Elective Subjects	: min 10 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 136 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”.

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from partial or complete 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EME1002	Statics & Strength of Materials	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EAE2002	Aviation Legislation & Human Factors	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EME2006	Engineering Materials	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
EMP3001	Major Project	3	12

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EME2011	Engineering Design	1	3
ECT2001	Circuits & Control Systems	2	5
ECT2004	Instrumentation & Computer Control	2	4
EAE3013	Higher Aerospace Training	3	10
EAE3015	Aircraft Structures & Composites	3	4
EAE3016	Aircraft Aerodynamics & Systems	3	3
EEE3004	Power Electronics & Drives	3	4

Diploma Subjects - Special Electives

Students can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective subjects, aim to help stretch the potential and meet the aspirations of students.

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
EED3011	Higher Engineering Skills 2	3	2
EMA3001	Higher Engineering Mathematics	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

AVIATION MANAGEMENT & SERVICES

"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
President
Council of the International Civil Aviation Organisation (ICAO)

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. It is an international business that spans six continents, linking cities, islands and communities worldwide. In this region alone, it is expected that nearly half a million new skilled aviation staff will be required from now till 2030.

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 six-month industrial attachment or by doing ground breaking research.

No aviation programme is complete without flying! You could fly as a cabin crew with a Singapore-based airline as part of your diploma internship, or choose to take the first step toward being a Pilot by taking our Aeronautical Science Option in your final year. If you are selected for this Option, you will go through flying lessons and take subjects required to obtain a Private Pilot's Licence (PPL), followed by some subjects to prepare you for the Commercial Pilot Licence (CPL) and Air Transport Pilot Licence (ATPL).

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".

Career Opportunities

Take a flight with us into this fast paced and dynamic industry where exciting and rewarding careers await you in Singapore and across the region. You can look forward to a wide spectrum of careers in operations and management, sales and marketing, customer services, flight operations, air traffic control, and aviation commercial development with airport operators, airlines, aerospace companies, aviation consulting and investment companies, civil aviation authorities, as well as ground handling and logistics companies.

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.

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, Design & Technology, Engineering Science, Physical Science, Physics, 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.*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 91 credit units
Option Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 131 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EAD1001	Introduction to Civil Aviation	1	4
EAL1001	Principles of Aeronautical Science	1	5
EAM1001	Airport Operations & Management	1	4
EBZ1001	Business Fundamentals	1	5
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EAL2001	Airline Operations & Management	2	4
EAM2001	Ground Handling Operations & Management	2	4
EAM2003	Aviation Safety Management & Human Factors	2	4
EAM2005	Airline Flight Operations	2	4
EAT2001	Airport Systems 1	2	4
EAT2002	Airport Systems 2	2	4
EAT2003	Airfield Systems 1	2	4
EBD2005	Security & Surveillance	2	4
EBM2004	Project Management	2	4
EBZ2003	Engineering Economy	2	4
EBZ2006	Service Quality & Management	2	4
EBM3004	Business Continuity Management	3	4
EMP3001	Major Project	3	12

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
Airport & Airline Option			
EAM1002	Airport Administration	1	4
EAL2002	Management of Air Cargo	2	4
EAT2004	Airfield Systems 2	2	4
Aeronautical Science Option			
EAM2006	Meteorological Studies	2	4
EAL2003	Air Navigation	2	4
EAL2004	Flight Planning	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BIOMEDICAL ENGINEERING

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

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 over the past two years, providing enormous job opportunities and career advancement prospects for holders of this diploma.

Career Opportunities

You will be able to find employment in design, manufacturing and marketing 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.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 99 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 135 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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from partial or complete 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBS1002	Human Anatomy & Physiology	1	5
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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1001	Chemistry	1	5
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem-solving	1	4
EBI2001	Introduction to Bioinformatics	2	4
EBS2002	Molecular Genetics	2	5
EEE2003	Circuits & Signals	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EMD2001	Medical Electronics	2	4
EMD2002	Medical Devices	2	4
EBI3001	Biostatistics	3	4
EMP3001	Major Project	3	12

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBS1003	Biochemistry	1	4
ECT2001	Circuits & Control Systems	2	5
EBI3003	Medical Imaging & Visualisation	3	4
EBI3004	Audiometry & Hearing Devices	3	4
EBS3003	Clinical Laboratory Equipment	3	4
EEE3001	Advanced Electronics	3	4
ESE3006	ASP .NET Web Programming	3	4

Diploma Subjects - Special Electives

Students can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma option subjects, aim to help stretch the potential and meet the aspirations of students.

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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BUSINESS PROCESS & SYSTEMS ENGINEERING

"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

In today's business environment, a company's operations are more complex and demanding, both online and offline. Tomorrow's business leaders need skills to solve related problems and refine business processes, in addition to performing the traditional role of business management. This course combines engineering disciplines with business management principles, producing graduates who are highly sought after by multinationals as well as small and medium enterprises, promising you a bright future ahead.

The introduction of business concepts and principles into a core of engineering fundamentals will enable our graduates to enter both the engineering and service sectors in Singapore and the region. With Singapore's vision to be a world-class service centre and logistics hub as we move into the 21st century, there will be a strong demand for professionals with the multi-disciplinary skills that this course provides.

You will be trained in both business concepts and principles as well as engineering fundamentals, thereby enabling you to enter both the engineering and service sectors in Singapore and the region.

There are two main areas in this course: Business Analytics and Systems Engineering which focuses on business processes and productivity improvements at the workplace. In addition, elective subjects such as Technopreneurship, Systems Engineering Management and Service Quality & Management will equip you with a wide range of practical skills to succeed in the world of work.

Career Opportunities

Armed with the knowledge of business principles, some product knowledge related to manufacturing, as well as an understanding of the systems which a company uses to engineer success and higher profits, you will be extremely versatile and will find lucrative career opportunities in the financial, manufacturing, service, and wholesale and retail sectors.

Potential jobs include: financial and business analysts, market researchers and analysts, customer sales executives, product marketing executives, quality and process control supervisors, productivity and management systems executives, front line operations managers, client relations officers, and wholesale and retail executives.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 131 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".

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, Design & Technology, Engineering Science, Physical Science, Physics, 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBZ1001	Business Fundamentals	1	5
EBZ1002	Principles of Economics	1	4
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPZ1001	Introduction to Processes & Systems	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
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
EBZ2005	Marketing Concepts & Strategies	2	4
EQM2001	Process Management & Innovation	2	4
ESZ2001	Decision Analysis	2	4
ESZ2002	Process Optimisation & Improvement	2	4
ESZ2003	Management Systems & Assessment	2	5
EMF3002	Manufacturing Logistics & Simulation	3	4
EMP3001	Major Project	3	12
EPZ3001	Customer Relationship Management	3	4
ESZ3002	Systems Modelling & Simulation	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBZ2006	Service Quality & Management	2	4
EBZ3008	Technopreneurship	3	4
ESZ3001	Supply Chain Management	3	4
ESZ3003	Systems Engineering & Management	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
EMA3001	Higher Engineering Mathematics	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

CLEAN ENERGY

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
Phoenix Solar Pte Ltd

With environmental concerns such as global warming and the depletion of fossil fuels, the pursuit of alternative clean and green energy sources has become extremely urgent and vital today. Be part of this global effort to save the earth!

This course covers four key areas, namely fundamentals in electronics, clean energy technologies (including solar power, fuel cells, wind energy, biomass and hydropower), smart energy systems as well as energy efficiency, audit & management.

You can look forward to using a range of exciting state-of-the-art and industry relevant learning facilities, such as our Class 100 Cleanroom, Clean Energy Research Centre and the newly setup Energy System Laboratory. These will not only enhance your learning experience, but also ensure that you are ready to handle the latest equipment in your future jobs.

In addition, you will have opportunities to gain global exposure and applied skills training through internship programmes at overseas institutions, such as the University of New South Wales, Australia and Southwest Jiaotong University, China. If you are passionate about the environment, you can also 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 PV technology, to light up the lives of villagers there by installing solar powered LED lighting.

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 Core Subjects	: 19 credit units
Diploma Core Subjects	: 106 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 134 credit units

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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.*

Career Opportunities

The Singapore government has implemented a comprehensive blueprint to grow the clean energy industry and transform Singapore into a global clean energy hub. Some of the measures include improving energy efficiency levels by 35 percent (from 2005 levels) by 2030, cutting carbon emissions by up to 16 percent by 2020, and greening 80 percent of all buildings by 2030. In addition, it is projected that the local power sector will need an additional 2,400 professionals by 2020, while the global market for low-carbon and energy efficient technologies, currently valued at US$740 billion, is expected to triple to US$2.2 trillion by 2020 . 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 jobs in the clean energy sector – as clean energy specialists/technologists; in the energy service sector – as energy auditors or energy management executives; in the power sector – as executive engineers; or in the electronics sector – as electronics assistant engineers or research associates.

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 especially in companies specialising in energy auditing and management, or energy measurement and instrumentation.

Upon graduation from this course, you can earn one or two years of advanced standing for relevant degree programmes at local and overseas universities.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ECE2001	Energy Conversion & Storage Systems	2	4
ECE2003	Fuel Cell Design & Testing	2	4
ECE2005	Fundamentals of Clean Energy	2	5
ECE2006	Solar Cell & System	2	5
EER2001	Electrical Systems & Power Distribution	2	4
EGB2002	Air Conditioning & Mechanical Ventilation	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EBM3005	Energy Management & Audit	3	4
ECE3001	Clean Energy Process Integration	3	4
ECE3003	Energy Efficiency & Efficient Drive	3	4
EMP3001	Major Project	3	12

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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

COMPUTER ENGINEERING

Today, computers are everywhere. The field of computer engineering is highly pervasive and is relevant to almost every sector of the economy, from high-tech manufacturing, to finance and business.

In today's computer industry, there is a great demand for computer engineers who possess a range of knowledge and skills to design and develop computer hardware as well as software, and smart devices made up of embedded systems and firmware. At the same time, the Internet of Things (IoT) and Cloud Computing are the emerging trends that are set to impact Singapore both socially and economically.

"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*

This course offers a winning combination of hardware, software and system integration that is highly industry-relevant across various sectors of the new economy. This is the only course which prepares you to be amongst the few who are fully proficient in hardware, software and integration of systems to become total solution providers. Our faculty is actively engaged in projects and curriculum upgrades to keep up with the trends.

Equipped with these necessary skills and the ability to quickly adapt to change, our graduates will have tremendous opportunities, as computer technology becomes more and more essential to business and daily life.

Career Opportunities

It is estimated that nearly 50 billion devices in the world will be connected to the Internet by 2020. Hence, IoT is poised to bring tremendous value and impact 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.

At the same time, as Singapore aims to be the top in the world by 2015 (iN2015) in harnessing Infocomm to add value to the economy, 80,000 new jobs are expected to be created. Due to the versatility of the skill sets acquired, this course opens doors to wider job opportunities in the electronics, Infocomm and IT industries.

You can look forward to a career as web-based application developers, system engineers, software and hardware engineers, embedded system application engineers, data analytics specialists, computer technologists, network system specialists and customer support or sales engineers.

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.

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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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.*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 97 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 133 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECC1002	Networking Fundamentals	1	4
EED1001	Electronic Prototyping	1	3
EED1002	Printed Circuit Board Design	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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EMC2005	Computer Interfacing	2	4
ESE2004	Object-oriented Programming	2	5
ESE3006	ASP .NET Web Programming	3	4
EMC3002	Embedded Control & Applications	3	4
EMP3001	Major Project	3	12
ESE3001	Database Management System & Design	3	5
ESE3009	Computer Architecture & Operating Systems	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EMC3004	Data Acquisition Systems	3	4
EWN3001	Wireless Area Network Technologies	3	4
ESE3008	Web Services Development	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
EMA3001	Higher Engineering Mathematics	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

ELECTRONICS

This course has proven 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)

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 or Option (each of which comprises at least five subjects). These are: Avionics, Networking, Robotics or Engineering Business.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 57 credit units
Option / Elective Subjects	: 47 to 50 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 132 credit units

Career Opportunities

Singapore's vision is to become 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. New jobs will be created for knowledge-workers as the industry moves into high-end design work and high-end manufacturing and marketing activities.

You will have excellent and flexible career prospects in aerospace, 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 and services.

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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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.*

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EMP3001	Major Project	3	12

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Engineering Business			
EBZ1001	Business Fundamentals	1	5
EBZ1002	Principles of Economics	1	4
ECC1002	Networking Fundamentals	1	4
ESZ1002	Quantitative Methods	1	4
EBZ2002	Marketing Intelligence	2	4
EBZ2003	Engineering Economy	2	4
EBZ2005	Marketing Concepts & Strategies	2	4
EBZ2006	Service Quality & Management	2	4
ECS2002	Engineering Business Communication	2	4
ETW2012	Electronic Communication Principles	2	5
EBZ3008	Technopreneurship	3	4
EPZ3001	Customer Relationship Management	3	4

Diploma Subjects - Cluster Elective Subjects

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
Avionics			
EAE 1006	Avionic Systems	1	4
EED1002	Printed Circuit Board Design	1	3
ECT2001	Circuits & Control Systems	2	5
EEE2001	Integrated Circuit Applications	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ETW2012	Electronic Communication Principles	2	5
EAE3011	Aircraft Structures & Flight Control	3	4
EAE3012	Aircraft Test & Measurement	3	3
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EMC3002	Embedded Control & Applications	3	4
Networking			
ECC1002	Networking Fundamentals	1	4
EED1002	Printed Circuit Board Design	1	3
ECC2012	Network Infrastructure Technologies	2	5
ECT2001	Circuits & Control Systems	2	5
EEE2001	Integrated Circuit Applications	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ETW2012	Electronic Communication Principles	2	5
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EMC3002	Embedded Control & Applications	3	4
EWN3001	Wireless Area Network Technologies	3	4
Robotics			
EED1002	Printed Circuit Board Design	1	3
ECT2001	Circuits & Control Systems	2	5
EEE2001	Integrated Circuit Applications	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ETW2012	Electronic Communication Principles	2	5
EMC3004	Data Acquisition Systems	3	4
ECT3002	Analytical Robotics	3	4
ECT3003	Robotic Control Systems	3	4
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EMC3002	Embedded Control & Applications	3	4

Course Structure

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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

GREEN BUILDING & SUSTAINABILITY

"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

"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.

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 only about 22 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 ecocity 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 masters degree in two years.

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".

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, Design & Technology, Engineering Science, Physical Science, Physics, 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.*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 97 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 133 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBD1003	Computer Aided Design & Space Planning	1	4
EEE1001	Circuit Analysis	1	6
EEE1003	Digital Fundamentals 1	1	5
EER1001	Electrical Services for Facilities	1	4
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EGB1001	Introduction to Green Development	1	4
EGB1002	Principles of Passive Design	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EBD2008	Building Information Modelling	2	4
EBZ2003	Engineering Economy	2	4
EBM2004	Project Management	2	4
EBM2006	Building Management Systems	2	5
EBM2005	Fire & Life Safety Management	2	4
EGB2002	Air Conditioning & Mechanical Ventilation	2	4
EGB2003	Hydraulics & Drives	2	4
EGB3002	Green Building Modelling & Simulation	3	4
EGB3003	Total Building Performance	3	4
EBM3005	Energy Management & Audit	3	4
EMP3001	Major Project	3	12

Course Structure

Diploma Subjects - Cluster Elective Subjects

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
Passive Building Design			
EGB2004	Tropical Architecture for Sustainability	2	4
EGB3004	Sustainable Design	3	4
Green Technologies			
ECE2005	Fundamentals of Clean Energy	2	5
EGB3001	Green Strategies for Building Systems	3	4

Diploma Subjects - Special Elective Subjects

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective 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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

INFOCOMM & NETWORK ENGINEERING

New social media, cloud computing, digital media & entertainment, smart devices and the Internet of Things (IoT) – these are some of today's buzzwords. These technologies are all enabled by Infocomm, a specialised field that harnesses the use of IT, communications and networking technologies.

The Infocomm sector is a key contributor to Singapore's economy, and it has also enhanced Singapore's competitiveness by raising productivity and transforming business processes.

"We are impressed with the technical knowledge and troubleshooting skills of your students from this course who had worked with us on several projects. Besides their technical ability, they have also shown a strong sense of responsibility and always went the extra mile to get the job done. These are definitely qualities that we look for in our future employees.

- Gary Tan
Assistant General Manager
Strategic Management Division
Panasonic Systems Asia Pacific

This course will empower you to tap the huge market for new Infocomm services and applications in industries such as healthcare, education, hospitality, retail and tourism, and financial services. It enables you to harness the latest Infocomm technologies, and apply them to meet Singapore's evolving communication needs. The curriculum provides a comprehensive, broad-based and multi-disciplinary education devoted to information technologies, network and communications engineering.

The most up-to-date training facilities and teaching materials supported by key industry players are the hallmarks of this course. As there are many business opportunities in the Infocomm market for new services and applications, this course also incorporates business skills to provide you with the know-how of being a technopreneur. You will have opportunities to work on industry-collaboration projects that will make your learning more challenging and practice-oriented.

Career Opportunities

Under the Infocomm Development Authority's Intelligent Nation 2015 (iN2015) and Next Generation National Broadband Network (Next Gen NBN), Singapore's total Infocomm revenue grew from S$102.5 billion in 2012 to S$148.1 billion in 2013 (an increase of 44.6 percent), while the Infocomm workforce expanded by 1.7 percent to 146,700 in the same period. In fact, Infocomm revenue has been increasing every single year since 1998, when it was just S$19.9 billion. The outlook for the Infocomm industry is therefore very promising.

With a strong technical foundation, you will be equipped to work in the IT, computer networking and communications industries. You can work as a programming and applications/ solution developer, system/ software designer and administrator, multimedia system engineer, network system engineer, web services specialist, wireless Internet service developer, or Infocomm sales and marketing executive.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 103 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 131 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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EEE1001	Circuit Analysis	1	6
EEE1002	Electronic Devices & Circuits	1	6
EEE1003	Digital Fundamentals 1	1	5
EEE1004	Digital Fundamentals 2	1	5
EED1001	Electronic Prototyping	1	3
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problems Solving	1	4
ECC1002	Networking Fundamentals	1	4
ECC2010	Mobile Device Applications Development	2	5
ECC2012	Network Infrastructure Technologies	2	5
ESE2004	Object-oriented Programming	2	5
ESE2008	New Media Marketing Applications	2	4
ETW2012	Electronic Communications Principles	2	5
ECC3009	Network Integration	3	4
ECC3010	Network Security Systems	3	4
ESE3001	Database Management System & Design	3	5
ESE3006	ASP .NET Web Programming	3	4
ESE3008	Web Services Development	3	4
EMP3001	Major Project	3	12

Diploma Subjects - Special Elective

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective 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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

INTEGRATED FACILITY MANAGEMENT

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

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.

Facility Management encompasses multiple disciplines to ensure functionality of the built environment by integrating people, places, processes and technology. In this course, you will be trained in the skills of facility management with an integrated, strategic and sustainable mind-set, and you will be equipped to meet the challenges of different kinds of facilities. 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.

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".

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 & entertainment, integrated resorts, business and financial sectors.

On top of your diploma, the competencies you will develop will enable you to obtain 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), the Certification in Business Continuity Management by the Business Continuity Management Institute (BCMI) as well as Associate Certified Project Engineer (Assoc. CPE) certification from the Institution of Engineers Singapore (IES).

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 93 credit units
Elective Subjects	: 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 133 credit units

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, Design & Technology, Engineering Science, Physical Science, Physics, 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBD1003	Computer Aided Design & Space Planning	1	4
EBM1002	Real Estate Business	1	4
EBT1003	Facilities Operations & Maintenance	1	4
EER1001	Electrical Services for Facilities	1	4
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ESZ1002	Quantitative Methods	1	4
EBD2005	Security & Surveillance	2	4
EBD2008	Building Information Modelling	2	4
EBM2004	Project Management	2	4
EBM2005	Fire & Life Safety Management	2	4
EBZ2003	Engineering Economy	2	4
EBZ2006	Service Quality & Management	2	4
EFM2004	Contract Management	2	4
EGB2002	Air Conditioning & Mechanical Ventilation	2	4
EBM3004	Business Continuity Management	3	4
EBM3005	Energy Management & Audit	3	4
EFM3001	Sustainable Facility Management	3	4
EGB3003	Total Building Performance	3	4
EMP3001	Major Project	3	12

Course Structure

Diploma Subjects - Special Elective Subjects

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective 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

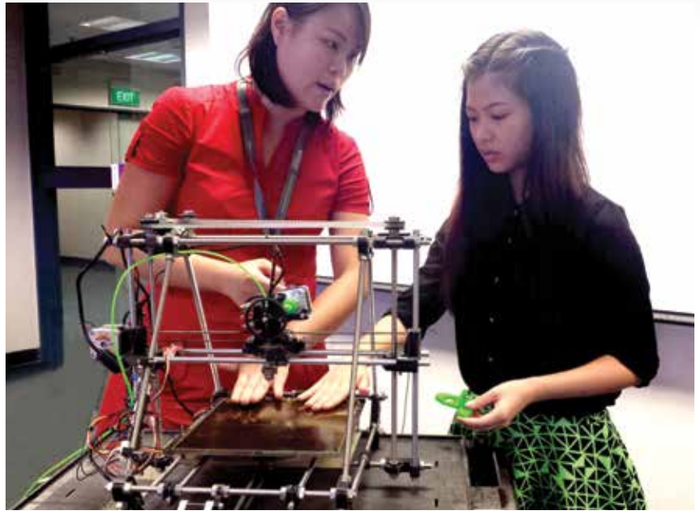
Diploma Subjects - Cluster Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Hospitality Cluster			
BHT1010	Introduction to Hospitality & Tourism	1	4
EFM2003	Integrated Resort Management	2	4
BHT2003	Club & Resort Business	2	4
Aviation Cluster			
EAM1001	Airport Operations & Management	1	4
EAM1002	Airport Administration	1	4
EAT2001	Airport Systems 1	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

MECHATRONICS



"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
NICAE Trading & Industrial Supplies

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, computer numerical control, 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 three Elective Clusters involving key areas of technology: Aerospace Systems, Process Control & Automation, and Robotics. 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.

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 electronics, mechanics, aerospace or computer engineering.

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 Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 92 credit units
Elective Subjects	: 11 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 131 credit units

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EME1002	Statics & Strength of Materials	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
EED2007	Mechatronics Design Project	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EME2004	Programmable Automation	2	4
EME2007	Machining Technology	2	4
EME2008	Principles of Dynamics	2	5
EME2011	Engineering Design	2	3
EMP3001	Major Project	3	12

Course Structure

Diploma Subjects - Special Electives

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective 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

Diploma Subjects - Elective Cluster Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Process Control & Automation			
ECT2001	Circuits & Control Systems	2	5
ECT2004	Instrumentation & Computer Control	2	4
EMF3004	Automation & Machine Vision	3	4
Robotics			
ECT3002	Analytical Robotics	3	4
ECT3003	Robotic Control Systems	3	4
EMC3004	Data Acquisition Systems	3	4
Aerospace Systems			
EME2006	Engineering Materials	2	4
EAE3008	Gas Turbine Engine	3	4
EAE3016	Aircraft Aerodynamics & Systems	3	3

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

MEDIA & COMMUNICATION TECHNOLOGY

Interactive high definition TV (HDTV), Internet protocol television (IPTV), and smart phones – these are just some of the technologies that come under the umbrella of media and communication technology in today's global economy.

This course enables you to tap into the emerging market created by the rise of the new technology in the field of communication. You will get to participate in this fast expanding field, with the skills to handle and manage the technologies that are vital in this sector: namely, digital communication, wireless devices, broadband, media design and other emerging media and telecommunication technologies.

"The students from this course who interned in our company displayed initiative and were able to add value with new ideas to improve the functionality of the mobile app which they developed for us. This testified to the industry relevance of their course and the rigorous training they had received.

- Chris Teo
Executive Director
Sapura Global Group of Companies

You will get a sound foundation in electronics, communications and digital media, with emphasis on a "hands-on, minds-on" approach.

The first year of the course is common with the Electronics course. In your second year, you will take on subjects covering the fundamentals of media and communication technology. In your third year, you will refine your specialisation by choosing elective subjects in areas such as multimedia networking & applications, wireless & mobile communications, and digital broadcasting.

Career Opportunities

The Singapore government's Next Generation National Infocomm Infrastructure plan, together with its commitment to put Singapore at the forefront of the interactive digital media (IDM) revolution worldwide, will create excellent career opportunities for graduates of this course. With the increasing shift towards wireless, digital and broadband applications in digital media today, the demand for media and communication technology professionals is therefore expected to increase tremendously in the near future, promising you excellent job prospects.

Exciting careers await you in the fields of designing, manufacturing, sales & marketing, service & maintenance or technical support in the communications, digital media, Infocomm or broadcasting industries.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 98 credit units
Elective Subjects	: 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 134 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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECC1002	Networking Fundamentals	1	4
EDM1001	Modelling & Animation	1	5
EDM1002	Fundamentals of Digital Media Processing	1	4
EED1001	Electronic Prototyping	1	3
EED1002	Printed Circuit Board Design	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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ECC2012	Network Infrastructure Technologies	2	5
EED2005	Integrated Project	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ETW2012	Electronic Communication Principles	2	5
ETW2013	Electronic Communication Systems	2	4
EMP3001	Major Project	3	12

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EDM2004	Advanced Digital Animation & Special Effects	2	4
ETW3001	Mobile Communications	3	4
ETW3010	Multimedia Network & Services	3	4
EWN3001	Wireless Area Network Technologies	3	4

Diploma Subjects - Special Electives

You can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective 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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

MICROELECTRONICS

Dressed in spacesuit-like overalls from head to toe, you work in air-purified cleanrooms while fabricating microelectronic devices, peering into powerful microscopes and examining tiny components called integrated circuit chips. This is one of the many exciting experiences you will enjoy as a Microelectronics student.

Microelectronics is a field of engineering that deals with the study of the miniaturisation of electronic components. It involves the design, fabrication and testing of microcircuits, also known as integrated circuit (IC) chips. These ICs are used extensively in mobile devices, computers, telecommunication equipment, audio-visual products, space equipment and other electronic products.

"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

This course provides you with a strong foundation in the electronics and microelectronics disciplines. The first year is common with the Electronics course. In your second and third years, apart from the core electronics subjects, this course also branches into specific microelectronics areas such as computer-aided IC chip design and layout, IC chip making or wafer fabrication technology, IC chip packaging process, IC chip test engineering, and IC chip failure analysis and reliability. There will be laboratory exercises, computer-aided design assignments, mini-projects, opportunities to handle high-tech microelectronics equipment and a major project. You will also get to use our Class-100 Cleanroom.

Career Opportunities

You will be equipped with technical skills to gain proficiency in the use of basic electronics and microelectronics-related equipment, as well as effective communication skills. You will also be proficient in 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, and IC chip design centres. Job prospects are attractive and diverse, covering design, technical support, manufacturing, sales and marketing, as well as service and maintenance.

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".

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Applicants should not be suffering from complete 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.*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 104 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 132 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	2

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
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
ESC1002	Engineering Physics	1	4
ESE1006	Computer Programming for Problem Solving	1	4
ECT2001	Circuits & Control Systems	2	5
EEE2001	Integrated Circuit Applications	2	4
EMA2001	Engineering Mathematics 3	2	5
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
EMI3001	Microelectronics Test & Measurement	3	5
EMI3005	Cleanroom Equipment and Technology	3	4
EMP3001	Major Project	3	12

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

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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 10 different engineering diploma courses – the widest choice currently offered by any polytechnic. You do a common first year, and choose your diploma course only in your second year, which means 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.

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 five EEE-related courses to do from your second year onwards. All five programmes will gear you ideally for further studies in EEE-related fields at local and overseas universities.

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 the 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.

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, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: Any special entry requirements for a specific diploma course will also apply if you choose to branch into that course.

** SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.*

Subject Synopses

DNG1342 Drawing Essentials

This subject introduces 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 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.

DHG2371 Interface Design

This subject introduces 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 an overview of the aviation industry and introduces the key concepts and interaction of components in the aviation system including airports, airlines, supporting systems and authorities. It also touches on the history and the role of key players in the aviation industry.

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 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.

EAE3006 Radio Fundamentals & Navigation Systems

This subject introduces basic concepts of radio theory and navigation systems. Radio theory includes Transmission Line Theory, Radio Frequency Propagation and Antenna Theory, as well as modern communication systems such as transmitters and receivers operation and different modulation techniques. Navigation systems cover fundamentals of communication systems used in aircraft communication, including intra-aircraft communication. System and subsystem level coverage of different navigation systems such as Inertial Navigation System (INS), Global Positioning System (GPS), Automatic Direction Finder (ADF) and Distance Measuring Equipment (DME) are included. Basic concepts and operation of different landing systems such as Instrument Landing System (ILS) and Microwave Landing System (MLS) will be discussed. Fundamentals of RADAR and its application in weather detection and Air Traffic Control transponder are also emphasised.

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 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.

EAE3011 Aircraft Structures & Flight Control

This subject covers the theory of flight through aeroplane aerodynamics and flight controls. The fundamentals of aircraft structures, automatic flight control, its working principles and automatic landing systems will be discussed in detail as required by Singapore Airworthiness Requirements (SAR-66) of the Civil Aviation Authority of Singapore.

EAE3012 Aircraft Test & Measurement

This subject introduces the common practices in test and measurement procedures and methodologies in the avionics industry. This includes learning the functions of various types of low-frequency and radio-frequency equipment used in testing. The principles and techniques of performing various types of measurements will be covered in details. Equipment calibration and traceability concepts will also be introduced.

EAE3013 Higher Aerospace Training

This subject allows you to work in Singapore Airworthiness Requirements – Part 145 Approved Maintenance Organisations, Part 147 Approved Maintenance Training Organisations or equivalent organisations. You may work on special industrial collaboration projects or embark on student exchange programmes with universities or tertiary institutions relevant to the aerospace industry. You may also represent our Polytechnic in competitions or participate in specialised training programmes relevant to the aerospace industry. The on-the-job training nature of this programme will provide opportunities for you to apply engineering concepts and skills to solve problems.

EAE3015 Aircraft Structures & Composites

This subject covers the general knowledge of airframe structures and their construction methods. Topics include structural strength, construction of typical airframe structures, methods of surface protection and structural assembly techniques. An introduction to composites and their fabrication and repair methods will also be covered.

EAE3016 Aircraft Aerodynamics & Systems

The subject covers the fundamental principles of aircraft aerodynamics, and various on-board systems of an aircraft such as flight control system, hydraulic system, landing gear system, fuel system, environmental system, and electrical system.

EAE3017 Engine Control & Instrumentations

This subject will introduce the aircraft instrument terminology and the devices used to measure pressure, temperature and rotational speed. It will also give you a good understanding of the principles and operations of the basic air data instruments, engine indicating instruments and the full authority digital engine control (FADEC) system. The subject will also include the operation of the pitot-static system, the compasses and gyroscopes, the air data computer, and the various instrument systems such as the engine indication crew alerting system (EICAS) and the electronic centralised aircraft monitor (ECAM) system.

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.

EAL1001 Principles of Aeronautical Science

This subject provides you with a basic understanding of the fundamentals of flight operations. Topics covered include the theory of flight, elements of air navigation, aircraft systems and performance, flight physiology, aviation regulations and safety, aircraft types and performance, as well as an overview of careers as commercial pilots.

EAL2001 Airline Operations & Management

This subject covers the fundamentals of airline operations and management. It includes an overview of the airline industry, air transport regulatory and business frameworks. Other topics include air transport economics, key airline performance indicators, airline marketing, airline route and network development, airline administration and the future trends and developments in the airline industry.

EAL2002 Management for Air Cargo

The subject provides an understanding of the fundamentals of the aviation logistics and cargo management. Topics covered include the importance of air cargo to the economy, cargo rates and tariffs issues, terminal facilities and work flow for cargo operations, as well as forecasts and future trends of the cargo industry.

EAL2003 Air Navigation

This subject will provide you with a basic understanding of navigation in general. It involves the study of the shape and dimension of the earth. Topics covered include chart projections, air speed, time datum, altimetry, and conversion of distances, speed, weight and wind velocity. An overview of the navigation computer will also be covered.

EAL2004 Flight Planning

This subject introduces the concept of flight planning and monitoring that is required in flight operations. Flight planning concepts such as radio navigation, navigational aids and services, aeronautical information publications, Notices to Airmen (NOTAM), topographical charts, single engine aircraft planning, multi-engine aircraft planning, Medium Range Jet Transport (MRJT) and special considerations for MRJT are included. In addition, weather charts, point of no return/ point of safe return (PNR/ PSR), Critical Point (CP) or Equal Time Point (ETP), airways, miscellaneous charts, ATC flight plan, abbreviations used and operational procedures are also covered.

EAM1001 Airport Operations & Management

This subject introduces you to the fundamental concepts and principles involved in the operations and management of modern international airports. You will learn about the principles of airport management and the various aspects of airport operations. Topics covered include an overview of key players in terminal operations, terminal signage systems, terminal ground operations, terminal contingency planning, aviation security, airport emergency system, and customer quality service management. An overview of future trends and challenges facing the airport industry such as the impact of new large aircraft and low cost carriers on airport planning and operations will also be covered.

EAM1002 Airport Administration

This subject introduces you to the fundamental concepts and principles involved in the organisational, political and financial administration of modern international airports. Topics covered include human resource, airport performance, airport commercial management, public relations, corporate/ business planning and airport finance. An overview of the various airport ownership models is also given.

EAM2001 Ground Handling Operations & Management

This subject introduces you to the fundamentals of ground handling operations and management. Topics covered include passenger, ramp and baggage handling services, ground handling agreements, in-flight catering and apron control management and its regulatory requirements.

EAM2003 Aviation Safety Management & Human Factors

This module provides you with a broad understanding of aviation human factors and the role that human factors play in flight operations and safety. This will lead up to the elements of a safety management system, human factors within system safety, threat and error management, and principles of safety information systems. You will have an opportunity to embark on a problem-based learning approach to learn about the causes of aviation accidents, and how to prevent them.

EAM2005 Airline Flight Operations

This subject introduces you to the fundamentals of airline flight operations. Topics covered include crew planning and scheduling, punctuality management, fleet assignment, maintenance and engineering issues, flight safety and security, flight dispatching and irregular operations and airline contingency plans. The operations of corporate aviation enterprises and an overview of future trends and challenges facing the airline industry are also covered.

EAM2006 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 & stability, turbulence and low and upper winds from of the Earth 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.

EAT2001 Airport Systems 1

This module provides an overview of the key facilities and systems in an airport, including passenger check-in systems, the flight information display systems, and the fully-automated baggage handling system such as the high-speed inter-terminal baggage transfer system and automated early bag storage key airport terminal system. In addition, you will also gain an understanding of the operation of the people mover system which ensures the seamless transfer of passengers between airport terminal buildings.

EAT2002 Airport Systems 2

This subject provides an overview of the key facilities and systems found at the airside of an airport. Topics include airfield design, airport lighting systems and aircraft pavement. For the airfield design, you will learn about airport classification codes and design standard. In the airport lighting systems, you will learn the characteristics and components of airport lighting systems. You will learn about aircraft pavement types, their strengths, runway surfaces and pavement management systems.

EAT2003 Airfield Systems 1

This module provides you with a basic understanding of the various air traffic control radar and communications systems used in the aviation industry, as well as the fundamentals of air traffic management. Topics include aviation meteorology, air traffic service (ATS)/ flight crew organisational structures, practices and procedures, aerodrome, approach and area control services, aeronautical information services and telecommunication, aerodrome ground aids, as well as an overview of careers as air traffic controllers.

EAT2004 Airfield Systems 2

This module provides you with advanced theoretical and practical skills in air traffic management. Topics covered include air law, aeronautical ground aids/ navigational aids, ATC-emergency procedures, procedures and techniques for managing air traffic, military ATC operations, and an overview of careers as operational air traffic controllers.

EBD1003 Computer-Aided Design & Space Planning

This subject introduces space planning methodology with computer-aided design (CAD) as design tools. You will learn space utilization in variety of building types and facility planning based on current building codes. You will also use CAD software to produce two-dimensional (2D) and three-dimensional (3D) drawings.

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.

EBD2008 Building Information Modelling

This subject emphasises the application of Building Information Modelling (BIM) to conceptualise and develop building designs that meets the intended objectives. You will learn about the BIM processes from conceptualisation stage to design, visualisation and simulation, and the application of BIM in integrating and coordinating the digitised models for architectural, mechanical and electrical systems.

EBI2001 Introduction to Bioinformatics

This subject covers basic bioinformatics concepts, tools and applications. It introduces the organisation and use of biological databases, computational methods and algorithms in genome analysis. It also includes topics such as pairwise and multiple sequence alignment techniques, and the construction of evolutionary phylogenetic relationships between biological species.

EBI3001 Biostatistics

This subject equips you with statistical techniques that can be applied in the biomedical sciences to solve biological problems. These techniques are used in many decision-making processes, especially in clinical trials and experimental studies that involve human subjects. Topics include the basics of probability and statistics, estimation of process characteristics, analysis of means (ANOM), analysis of variances (ANOVA), correlation cum regression techniques, and a brief introduction to experimental designs.

EBI3003 Medical Imaging & Visualisation

This subject provides you with the principles of the various medical imaging techniques such as diagnostic ultrasound, computed tomography, nuclear medicine imaging, and magnetic resonance imaging. It also covers the fundamental of image representation, image processing, and image visualisation used in biomedical applications.

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; and you will be equipped with the skills to screen for hearing impairment. You will also learn about the underlying technologies behind digital hearing aids.

EBM1002 Real Estate Business

This subject covers the knowledge in real estate business, which includes land, buildings and facilities. You will learn all aspects of the real estate business which includes the legal systems, economics, urban planning, valuation and investment, marketing and management.

EBM2004 Project Management

This subject aims to provide 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 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 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 business impact analysis, risk evaluation, BCM strategies and BCM plan development. 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.

EBS1002 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.

EBS1003 Biochemistry

This subject investigates the constituents of biological systems, their properties and their significance to biological sciences with particular reference to carbohydrates, lipids, proteins and enzymes. This extends to the understanding of the functions of proteins and enzymes as well as protein synthesis and information pathways.

EBS2002 Molecular Genetics

This subject teaches both the theory and practical techniques of the E.coli system in molecular genetics. Topics include DNA structure, DNA replication, DNA transcription, translation and DNA mutations. You will also be introduced to the different types of operons and study how these are regulated.

EBS3003 Clinical Laboratory Equipment

This subject focuses on important aspects of clinical laboratory and instruments widely used in clinical laboratories. Topics include centrifuges, automated analysers, separation techniques, bioreactors, mass spectrometry and clinical trials. Essential insights to clinical laboratory practices are also given.

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.

EBZ1001 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 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.

EBZ2005 Marketing Concepts & Strategies

This subject equips you with a fundamental knowledge of marketing concepts with emphasis on how to apply them to technology-based products and services. It covers analysis of the marketing environment, marketing research, target marketing and the application of the marketing mix of 4P's namely product, price, place and promotion to achieve marketing goals.

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 ecommerce 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. You are taught the basics of data transmission, the Open Systems Interconnection (OSI) model, as well as local area network protocols and technologies.

ECC2007 Networking Infrastructure

This subject covers the basic theories of routing and switching and their applications in the networking environment. It focuses on IP addressing scheme for a large-scaled network, operation of a Wide Area Network (WAN), routing protocols and switching architectures. It provides opportunities for you to design and implement a network.

ECC2010 Mobile Device Applications Development

This subject covers the development of applications on mobile and wireless computing platforms. It provides an overview of mobile applications, its importance and benefits. It introduces the technologies and methodologies for their development. This includes the architectures, frameworks, standards, programming languages, design process and tools.

ECC2011 Network Security Fundamentals

Network security involves identifying and assessing risks to the computer network, putting in place the systems, processes and control measures to protect information stored and carried in networks. You will be taught both the theoretical and practical aspects of network security, and also be exposed to the various threats and attacks on networks, as well as the counter-measures against these threats.

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.

ECC3001 Internetworking Technologies

This subject covers the design and implementation of an enterprise network. You will be taught advanced Internet Protocol (IP) address management techniques and the supporting IP routing methods. You will also learn how to interconnect enterprise networks separated over large geographical area and provide the necessary security mechanisms.

ECC3004 Enterprise Web Application

This subject introduces you to the design and creation of a Web-based application. You will learn to develop and implement client/ server applications in a multi-tier environment using various software technologies to generate dynamic web content. The topics covered include JavaServer Pages (JSP), JavaBeans, Java Database Connectivity (JDBC) and XML.

ECC3009 Network Integration

This subject covers the design and implementation of large networks. You will be taught advanced Internet Protocol (IP) subnet planning and optimization techniques, so as to apply to scalable routed and switched networks. The subject also covers Internet Protocol version 6 (IPv6), which deals with the increasing demand for dedicated IP addresses, and you will learn how to provide basic security mechanisms.

ECC3010 Network Security System

The subject focuses on identifying and assessing risks to the computer network, and then implement appropriate mitigating measures. You will acquire the knowledge and skills to design and implement network security solutions in small and medium size enterprise (SME) business environments, and also learn how to configure and manage necessary security hardware and software. In addition, you will be taught how to protect the network so that only authorized access is permitted, and data transmission is safe.

ECE2001 Energy Conversion & Storage Systems
This subject introduces the different energy conversion processes that can be used to harness energy from primary sources such as wind and biofuels, and to convert them into more convenient secondary energy forms, such as electrical energy. The different types of storage systems, such as rechargeable batteries, flywheel systems, and ultra-capacitors, as well as their characteristics and applications will also be covered.

ECE2003 Fuel Cell Design & Testing
This subject provides you with the knowledge of fuel cell operation, component materials, design and testing. It also covers the various fuel cell system components and their integration issues. You will get to use lab equipment to test and characterise fuel cells based on the properties of the fuel cell component materials used as well as analyse the important factors affecting the performance of fuel cells.

ECE2005 Fundamentals of Clean Energy
This subject focuses on harnessing of energy from clean and renewable sources such as solar energy, water, biomass and wind, using efficient technologies. The physical processes behind the clean energy technologies will be covered. The environmental impact from using energy and the available mitigation tools will also be discussed.

ECE2006 Solar Cell & System
This subject introduces the operating principles, design, fabrication and application of solar cells.
Topics include semiconductor properties, p-n junction diodes, solar cell design and fabrication processes, solar cell and panel characteristics and solar photovoltaic (PV) system design and installation. The emphasis will be on standalone and grid-connected PV power generation systems.

ECE3001 Clean Energy Process Integration
This subject provides an integration of the various clean energy manufacturing processes. You will learn about the equipment used and the energy balance models of industrial processes. The system integration of different clean energy sources will be introduced. Other technical aspects such as smart metering and micro-grid will also be covered.

ECE3003 Energy Efficiency & Efficient Drive
This subject covers the energy efficiency in different types of facilities and the optimisation of motor driven system to save energy.
You will learn the importance of energy efficiency in buildings, power generation, transportation and motor-driven systems found in the industry. Energy efficiency analysis and computation will also be introduced.

ECS1003 Writing & Oral Presentation
In this subject, you will acquire technical writing and oral presentation skills. You will learn how to write and organise technical reports and how to prepare a speech using techniques to deliver an effective speech that holds the attention of your audience. You are expected to conduct research to gather information and widen your perspectives for both the report and oral presentation.

ECS1004 Introduction to Effective Communication
This subject introduces the basic skills needed for technical communication in the areas of listening, reading, speaking, writing and research. You will learn to recognise the organisational structure, style and content of formal spoken and written engineering texts. You will also learn to write sentence structures commonly found in engineering texts. In addition, you will learn to produce the linguistic features of spoken Standard English. The subject also introduces the skill of using library resources for research purposes.

ECS2002 Engineering Business Communication
This subject covers the major elements of successful communication in an engineering-related business domain. It deals primarily with the written and spoken language skills involved in presenting, publicising and promoting an engineering product or service. The subject also covers the functions and requirements of the different media that are used in the communication process. Thus you will work on different communicative activities to apply the tools and strategies of integrated marketing communication.

ECS2003 Organisational Communication
This subject prepares you for written and spoken communication in the world of work, focusing on intra- and inter-organisational communication. Group communication is also emphasised to enhance your sensitivity in communication situations and your awareness of communication dynamics. You will also learn that culture does affect communication within groups and at the organisational level.

ECS3002 Career Communication
This subject prepares you for your career by refining the technical writing skills that you have learnt in earlier Communication Skills modules, as well as providing you with the tools for an effective job search. Besides learning how to write a well-structured and coherent technical report for the workplace, you will also enhance your employability. You will learn the critical aspects of a job search, including skills analysis, writing resumes and cover letters, grooming and deportment, and interview skills.

ECT2001 Circuits & Control Systems
This subject introduces 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 first and 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.

ECT2004 Instrumentation & Computer Control
This subject provides you with the fundamentals of instrumentation and process control. It mainly covers process documentation, instrumentation and measurements, controller principles, multiple loop control system, and computer & digital control systems. You will be equipped with basic programming skills and essential knowledge of process instruments and control strategies which will prepare you for careers in the process automation and control industries.

ECT3002 Analytical Robotics
This subject introduces 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.

ECT3003 Robotic Control Systems
This subject focuses on digital control theory and state-space design in robotic applications. You will be introduced to the applications of modern digital design concepts in robotic control systems that will extend your skill and knowledge in state space design methods, digital system stability, and digital controller techniques. You will also learn to analyse, design and observe the characteristics of motion control systems through lab experiments and assignment projects.

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 3Danimation 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.

EDM3001 Advanced Interactive Digital Media
This subject provides you with the knowledge and skill to develop interactive 3D digital media for use in numerous fields such as engineering, marketing, education and training. Topics include the use of virtual reality tool to create behaviour for objects, user interactivity with objects, build customised programs, and script for logic workflow.

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 & 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.

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. CAD modelling is also taught. 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.

EED2005 Integrated Project
This subject provides an opportunity for you to apply the knowledge you have acquired. You will apply the tools, techniques and skills in creative problem solving, research and design, and project management.

EED2007 Mechatronics Design Project
To design a Mechatronics product that fits the needs of end-users, a designer's understanding and application of the underlying principles in microcontroller is needed. This subject provides you with the basic principles in the development of a Mechatronics product design through hands-on experience. You will have opportunities to develop a product idea using a Computer Aided Design system and having the paper design built through the prototyping techniques.

EED2008 Product, Process & Computer Aided Design
This subject provides you with a design-oriented environment in the creative design of products. The five main topics in this subject are: product and process design, design tools, needs and goals, product design specifications and developing concepts. You will also gain essential knowledge in design and process development by working on a semester project.

EED3009 Special Project 1
Special Projects 1 and 2 are avenues for you to work on special industrial collaboration projects, R&D projects, or to represent TP in relevant competitions or programmes. Through these special electives, you will build and deliver projects in accordance with competition specifications or goals.

EED3009 Special Project 2
See Special Project 1 above.

EED3011 Higher Engineering Skills 1
Higher Engineering Skills 1 and 2 aim to impart some special design and hands-on skills that allow you to acquire knowledge and skills that are not normally incorporated into a diploma programme. These Special Elective subjects will equip you with the skills and knowledge to participate in competitions and enable you to tackle real challenges.

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.

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 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 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 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 a strong foundation in basic engineering concepts, electrical principles, circuit theorems, digital electronics and electronic devices.

EEE2001 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.

EEE2003 Circuits & Signals
This subject introduces specific circuit configurations and design concepts used in medical equipment, as well as the basic concepts of signal processing. The first part of the subject describes Op amp applications in bio-potential amplifiers, in filter designs and some design aspects of power supply used in medical devices. Topics covered in the signal processing portion include signal filtering, convolution, signal sampling and correlation. Applications of signal processing related to bioelectric signals are used to provide a better understanding of these useful techniques.

EEE3001 Advanced Electronics
This subject provides the basic concepts of designing and using linear integrated circuits for different functions such as amplifiers and voltage-controlled oscillators. The design of attenuators and filters, and fundamentals of sensors and transducers will be discussed too.

EEE3004 Power Electronics & Drives
This subject is an introduction to the study of machines, power semiconductor devices and their applications as power converters and motor drives. Topics covered include basic principles of DC and AC motors, fundamentals of controlled rectifier sand drives, principles of DC choppers and drives, and inverters. The uses of semiconductor devices in power applications and thermal effects on the performance of these devices due to high power will also be discussed.

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 the safety requirements and regulations governing electrical distribution and installation.

EER2001 Electrical Systems & Power Distribution
This subject provides an overall operation of a power distribution network in the generation, transmission and distribution of electricity. You will also be trained in the designing of electrical systems (HV and LV) for effective and efficient delivery of electrical energy. These include the design and the sizing of different components such as system earthing, circuit breakers, fuses, cables, transformers, according to their respective industry standards.

EFM2003 Integrated Resort Management
This subject provides you with an overview of integrated resorts including the different services provided. The focus will be on management of service areas which include front-end and back-end operations which are so critical in the management of an integrated resort. Resort life cycle and marketing strategies to sustain resort operations will also be discussed. Other topics include event management, the management of income-generating operations, as well as the importance of establishing a service culture in an integrated resort.

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
The subject highlights the roles of Facility Management (FM) in meeting sustainable goals of reducing carbon footprint and emission of the assets/properties under its management. It will examine the policies and practices that FM should implement to achieve the said goals. More specifically, the subject will describe the framework and strategies for achieving 'greener' results from the inception, design and construction, to the operational stage of a building. It 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.

EGB1002 Principles of Passive Design
This subject covers the passive design principles and strategies that may be applied to minimise building energy consumption while ensuring human comfort. It begins with an overview of passive design, followed by the fundamentals of climate analysis, heat transfer and thermal comfort, before moving on to discuss the principles and strategies of passive cooling, ventilation, heating and lighting. Emphasis is placed on passive cooling and ventilation strategies that are relevant to tropical cities such as Singapore. An important practical component of this subject is the use of airflow simulation software to analyse the performance of a naturally ventilated building.

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 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, South-east Asian Indigenous Buildings, Late-modern Architecture and Green Buildings. Issues regarding contemporary urbanisation and sustainability will also be explored.

EGB3001 Green Strategies for Building Systems
This subject covers the various energy efficient strategies for building systems to reduce energy consumption as well as data analysis for better system performance. For energy efficient strategies, it will focus mainly on the two larger energy consumption systems, namely air-conditioning system and lighting system. Carbon management for buildings will also be covered. A programming tool will be used to carry out data analysis and identify possible problem areas of a building system.

EGB3002 Green Building Modelling & Simulation
This subject provides 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. The simulation portion of this subject includes solar radiation analysis, shading design, lighting design, overshadowing and site analysis.

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.

EMA1001 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.

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.

EMA2001 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. It exposes you to the basics of microcontrollers. Emphasis will be given on the knowledge of microcontroller architecture, applications and programming. You will acquire knowledge and skills through the development and testing of microcontroller-based systems for real-world applications such as a bank automated queuing system, or a traffic-light and pedestrian crossing control system.

EMC2005 Computer Interfacing
This subject provides the knowledge and skills of interfacing peripherals to the Personal Computer (PC). You will be exposed to various PC interfacing techniques, such as serial, parallel and USB interfacing, computer bus standards and protocols.

EMC3002 Embedded Control & Applications
This subject provides enhanced knowledge of microcontroller-based embedded systems with emphasis on interfacing and applications. You will learn to use the built-in peripherals of the microcontroller and design the software and interfacing circuits to implement embedded applications. You will also work on a group project that uses most of the internal peripherals, programming and interfacing techniques learnt in the subject.

EMC3004 Data Acquisition Systems
The subject covers PC-based data acquisition concepts. It encompasses signal conditioning, transducers, virtual instrumentation, signal measurement and data acquisition techniques, as well as interpretation and presentation of acquired data. You will acquire the skills through hands-on experience in installing, configuring and using PC-based data acquisition hardware and software.

EMD2001 Medical Electronics
This subject introduces fundamental instrumentation theories for biomedical applications and design requirements for the measurement of bio-signals. Topics include electrodes and transducers, bio-potential measurements, amplifier basics, as well as differential and instrumentation amplifiers. Filter designs, noise and electromagnetic interference issues are also discussed.

EMD2002 Medical Devices
This subject discusses the fundamentals of medical devices generally used in hospitals, such as the electrocardiograph, electroencephalograph, electromyograph, therapeutic devices, as well as life-saving and support devices. The essential principles of safety and reliability of medical devices are also covered.

EME1002 Statics & Strength of Materials
This subject consists of two principal areas: fundamentals of statics and strength of materials. Fundamentals of statics provide an introduction to the basic concepts 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.

EME2006 Engineering Materials
This subject provides you with an overview of the composition, processing and properties of engineering materials. It covers basic structural materials, including metals, polymers, and composites that are commonly used for engineering applications. You are also introduced to heat treatment process, Non-Destructive Testing (NDT) and various surface treatment processes.

EME2007 Machining Technology
This subject introduces 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 objective is to present the foundation and applications of dynamics. 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".

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 & lift, and compressible flow.

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

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 comprises two parts: Automation and Machine Vision. In the first part, you are given a basic understanding of the main components of an automatic system, ranging from various types of motor, servo system, sensors and programming techniques. The second part will expose you to the basic principles of machine vision systems, including some methodologies and techniques commonly used in the industry. The fundamental knowledge of the industrial automation, machine vision and their applications are covered.

EMI2001 Semiconductor Physics & Devices
This subject presents various concepts related to semiconductor technology. It covers the physics of atoms, general material science including semiconductor materials, carrier transport in semiconductors, the physics of p-n junctions, semiconductor contacts, MOS capacitors and MOSFETs.

EMI2002 Wafer Fabrication Process Technology
This subject provides you with the fundamental principles of wafer fabrication processes in semiconductor technology. There will be hands-on laboratory work and computer simulation sessions to enhance your learning experience.

EMI2005 IC Packaging & Failure Analysis
This subject covers various semiconductor assembly processes, process material properties, packaging technologies, integrated circuit failure analysis techniques, reliability physics and failure mechanisms. You will be exposed to various concepts and issues in the IC packaging/assembly processes and failure analysis.

EMI2008 IC Process Integration
IC process integration involves the design of a suitable process flow, or appropriate sequencing of processes in the fabrication of IC wafers. Various aspects of IC process integration are covered, such as isolation technology, interconnect technology, runsheet drafting, application of test structures for process monitoring and device testing, as well as the design and characterisation of basic MOS devices. You will also be exposed to the various concepts and issues in IC process integration through hands-on fabrication of a simple IC chip in a class 100 cleanroom.

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.

EMI3001 Microelectronics Test & Measurement
This subject focuses on the concepts and applications of automated test systems for integrated circuits. Topics such as industrial standard automated test systems and testing methodologies of various semiconductor components and devices will be covered.

EMI3005 Cleanroom Equipment & Technology
This subject introduces cleanroom as well as vacuum technology. It includes the classifications of cleanrooms, factors to control the environment and its related facilities, and principles of vacuum pumps and gauges.

EMP3001 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 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.

ESC1001 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.

ESC1002 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 & Optics and Materials. This subject provides a foundation for a further in depth study of the various engineering disciplines.

ESE1006 Computer Programming for Problems Solving

The subject aims to equip you with fundamental knowledge and software design techniques and skills to solve problems encountered in the field of engineering. By introducing computer programming as a tool, you will learn how to break down a problem into a sequence of smaller abstractions. In addition, you will learn how to use a programming language to implement a top down algorithm design to derive a software solution to the problem, and be familiar with the process of designing, writing, testing, and debugging program codes.

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 use of the Unified Modelling Language (UML). With the skills acquired in this course you will be able to design and developed a computer program using an object-oriented language with a proper graphical user Interface.

ESE2007 Software Design Process

This subject equips you with a good understanding of software design and development process. Important phases of the software development process will be covered. More emphasis will be placed on object-oriented software design using UML (Unified Modelling Language), software documentation and testing methodologies in order to gear you towards a more practice-oriented industry.

ESE2008 New Media Marketing Applications

This subject covers the User Experience (UX), the development and the analytics measurement of new media. The subject will focus on the development of applications for Facebook. You will be equipped with knowledge of User Experience and Analytics, as well as skills to develop applications for new media using development tools.

ESE3001 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, then finally to 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). You will be able to apply and demonstrate your learning through group-based PBL projects.

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, you will be taught to create Web Forms. Data accessing using ADO.NET is then covered followed by the use of web tools to enhance and improve functionality. You will also learn how to deploy your ASP.NET web applications in mobile devices using HTML 5 tools in Visual Studio.

ESE3007 Computer Game Programming

This subject provides you with knowledge of the multidisciplinary nature of game programming and the ability to create your own game programs. It will provide you the opportunity to work through the entire development process, from preparation of 3D avatars and the related animation, to texturing and colouring, and finally the actual implementation of the game. You will be able to stretch your creativity and imagination to the fullest as you work through the course.

ESE3008 Web Services Development

This subject aims to provide you with knowledge on prevailing technologies in web services and cloud computing. It also provides you with the necessary skills in developing and consuming web services using the cloud computing model. You will first learn the basics of building and consuming web services using various web services protocols. The cloud computing concept will then be introduced and the various types of cloud services will be discussed. You will then learn to build applications that will make use of these different cloud platform services as well as to deploy them on the cloud.

ESE3009 Computer Architecture & Operating Systems

This subject introduces the fundamental design concepts of a typical computer system which forms the system architecture. You will also learn about the components of a computer operating system that support this architecture.

ESI2001 Student Internship Programme

This subject prepares you for the working world by providing you with opportunities to take responsibility for your own learning and to develop life-long skills such as effective communication and interpersonal skills.

ESZ1001 Systems Concepts & Tools

This subject provides an overview of systems thinking concepts and systems thinking. Systems thinking is the understanding of how feedback processes can generate patterns of behaviour within organisations and human systems. It includes tools such as “links and loops” and “archetypes”. There is also a discussion on the fifth discipline and the learning organisation.

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.

ESZ2003 Management Systems & Assessment

This subject provides an overview of general management systems used in industries. You will acquire the knowledge and requisite skills in planning a Quality Management System, Environmental Management System as well as conduct a Quality Audit. Practical sessions to set up a simple quality management system, starting from writing a quality procedure to conducting an audit will be carried out.

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 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.

ESZ3003 Systems Engineering & Management

This subject equips you with systems engineering management knowledge as well as the skills to be able to apply the knowledge learnt to analyse the systems dynamics, identify opportunities to enhance systems performance, or design solutions for a new system. Skills involving assessing risks and uncertainties of such systems will also be introduced.

ETW2012 Electronic Communication Principles

This subject introduces the building blocks and the principles on which typical electronic communications systems operate. Topics include modulation techniques, basic operation of radio transmitters and receivers, signal analysis, sampling theorem, source coding techniques such as pulse code modulation and delta modulation, pulse shaping for data transmission, digital carrier modulation techniques, and error control coding.

ETW2013 Electronic Communication Systems

This subject introduces you to the building blocks on which typical electronic communications systems operate. Cellular communication systems, microwave radio communications systems, satellite communications systems, and optical fibre communications systems will be covered.

ETW3001 Mobile Communications

This subject provides the principles and fundamentals of how mobile communication systems work. With these, you will be able to keep pace with advancement in mobile communications technologies, such as the 2G, 3G and 4G developments. The subject also introduces mobile radio communications and explains commonly used terminologies and the radio frequency spectrum.

ETW3010 Multimedia Network & Services

This subject provides a practical systems-oriented view of broadband and broadcasting networks. You will be introduced to the fundamentals of various technologies and architectures, including topics on data services based on cable and ADSL modems, as well as digital audio and video broadcasting. Laboratory sessions will emphasise voiceover-IP and application design for interactive TV and IPTV.

EWN3001 Wireless Area Network Technologies

This subject equips you with the essential knowledge and hands-on skills for practical wireless area network projects involving the current wireless devices in the industry. You will have opportunities to learn more about technologies such as Wireless Personal Network (WPAN) and Wireless Local Area Network (WLAN) protocols, as well as common wireless devices used today.

LEA1001/1002/1003 Leadership: Essential Attributes & Practice (LEAP)

This is a Leadership & Character Education programme which consists of three core subjects – LEAP 1, 2 & 3. It seeks to cultivate in you the dispositions (i.e. attitude, skills and knowledge) towards the development of your leadership competencies. It is a leadership programme that enables you to develop leadership life-skills that embrace character as the core foundation for your leadership credibility and influence.

SCHOOL OF HUMANITIES & SOCIAL SCIENCES

Contents

The School of Humanities & Social Sciences (HSS) promises a holistic and student-centred curriculum that will groom vibrant and dynamic 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 its 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.

EARLY CHILDHOOD STUDIES

"From preschool to universities, we will invest more. We will create more opportunities for everyone to have a good education... We must let our children have a good start! So the government will make childcare more affordable. We expand childcare. We will also make kindergarten education better. In our schools, we are working with parents to nurture the character and values of our young. Let us give our children a good foundation, so that they can be good people and succeed in life.

- Mr Heng Swee Keat
Minister for Education

Are you someone who wants to spend your days at the 'office' rattling off the alphabet, 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.

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 and a blend of global perspectives in the core curriculum.

With a kindergarten set up within the polytechnic campus to support the training of students in this course, you can look forward to authentic learning experiences in a real world early childhood setting. A specially designed observation laboratory also provides opportunities for research.

Scholarships are available for students who have good GCE O Level examination results.

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, child psychology, curriculum specialist, writer of children's literature, event planner for children's events, and training of early childhood professionals.

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 Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 83 credit units
Elective Subjects	: min 3 credit units
Option Subjects	: 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

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.

All applicants will also be required to pass a medical examination and be free from physical disability. Please see page 359.

Foreign Qualifications

1) Formal education in English:
- Completed 10 years of formal education 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.[1]

2) Formal education not in English
- Obtained an undergraduate degree with English as the medium of instruction from a state-recognised university.[2]

- Please note that in order 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. Mother Tongue (MT) teachers must have obtained at least a B4 grade in MT. Those who obtain C5 or C6 in EL1 and/or MT are given two years from the point of teacher registration to obtain either a B4 or an acceptable alternative[1] for EL teachers, and a minimum of level 6 in Hanyu Shuiping Kaoshi (HSK) for Chinese language teachers.

[1] *Please refer to table (List of English Acceptable Alternatives) in this link: www.ecda.gov.sg/pages/ECTAC-Related-Matters.aspx*

[2] *This also applies to applicants with state-recognised PhD/Master degrees with English as the medium of instruction.*

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GCS1001	Fundamentals of Public Speaking	1	3
GCS1002	Academic Writing	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
GCS3001	Professional Communication Skills	3	3
GEC3002	Student Internship Programme	3	8

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
GPS1001	Foundation Psychology A (Mind, Brain & Behaviour)	1	3
GPS1002	Foundation Psychology B (People in Contexts)	1	3
GPS1015	Introduction to Educational Psychology	1	4
GST1002	IT Applications for Humanities & Social Sciences	1	4
GST1003	Introductory Research Methods	1	4
GEC2001	Early Years Classroom Management	2	4
GEC2002	Child Safety, Health & Nutrition	2	3
GEC2003	Family & Community Collaboration	2	4
GEC2004	Early Years Curriculum Integrated Project	2	4
GEC2008	Creativity & the Arts	2	2
GEC2009	Global Perspectives in Early Childhood Studies	2	4
GEC2017	Children Observation & Documentation	2	2
GPS2007	Developmental Psychology	2	4
GPS2016	Child Psychology	2	4
GEC3001	Major Project	3	8
GPS3007	Psychology of the Exceptional Child	3	4

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Global Studies Option			
GEC1011	Early Years Global Citizenship	1	4
GEC2010	Early Years Cross-Cultural Studies	2	4
GEC2018	World Children's Literature	2	4
Psychology Research Methods Option			
GST1001	Principles of Statistics	1	4
GPS1007	Research Methods A (Non-Experimental Design)	1	4
GPS2001	Research Methods B (Experimental Design)	2	4
Early Childhood Intervention Option			
GPS1018	Issues, Trends & Collaborations in Early Childhood Intervention	1	4
GPS2018	Classroom Management & Strategies in Early Childhood Intervention	2	4
GPS3009	Assessment, Evaluation & Programming in Early Childhood Intervention	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GEC1012	Developing Digital Media for Early Years Education	1	4
GEC1013	Children's Film & Media	1	3
GEC1014	English Communication Skills for Early Years Practitioners	1	4
GPS1009	Introduction to Counselling Psychology	1	3
GPS2005	Social Psychology	2	4
GEC2011	Aggressive Behaviour & Bullying in Children	2	4
GEC2012	Children's Literature	2	3
GPS2017	Cognitive Psychology	2	4
GPS3003	Abnormal Psychology	3	4
GPS3006	Special Project	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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 that is expected to be worth USD$3 trillion by 2017, within the Asia-Pacific alone.

Who do they need: Graduates with an in-depth understanding of the silver market and the 'business of ageing' to support the aspirations of this increasingly significant sector of the population.

"...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

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 the population ages and people are living longer, there will be a dramatic growth in opportunities in the silver industry. In view of this trend, the course is designed to meet the specific requirements of this rapidly growing industry and market group.

The course offers a multi-disciplinary curriculum that is underpinned by a sound knowledge of gerontology with insights from sociology and psychology. You will be equipped to apply this knowledge of ageing issues in a range of business settings.

The course provides you with specialised training in the following areas identified as growing sectors by the silver industry: travel and leisure, financial products and services, and health and wellness. You will acquire a working knowledge of the relevant industries through practical education, training and project work.

Career Opportunities

The course prepares you for a rewarding career in the silver industry. Careers you can look forward to include being business executives, tourism and leisure management officers, human resource and training executives, marketing executives, investment and financial planning officers, retail executives, international patient services coordinators, social work associates, programme management officers, managers of retirement villages, sports and wellness consultants, and entrepreneurs. You will also be well-positioned to take on other people-oriented careers that focus on providing products and services to the mature generation.

The scope of jobs available to you will not be limited to the silver industry since the business training provided will be valuable in all business environments.

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".

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 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, Literature in Chinese, Literature in Malay, Literature in Tamil, Media Studies (English)/ Media Studies (Chinese), Music.

Applicants must have also sat for one of these subjects: Additional Mathematics, Art/ Art & Design, Business Studies, Chinese, Combined Humanities, Commerce, Commercial Studies, Creative 3D Animation, Design & Technology, Economics, Elementary Mathematics, Food & Nutrition, Geography, Higher Art, Higher Chinese, Higher Malay, Higher Music, Higher Tamil, History, Introduction to Enterprise Development, Literature in English, Literature in Chinese, Literature in Malay, Literature in Tamil, Malay, Media Studies (English), Media Studies (Chinese), Music, Principles of Accounts, Tamil.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 85 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GCS1001	Fundamentals of Public Speaking	1	3
GCS1002	Academic Writing	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
GCS3001	Professional Communication Skills	3	3
GIP3001	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ANT1003	Nutrition Fundamentals	1	3
BAF1007	Basic Business Finance	1	4
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
Elective Cluster Subjects - Financial Product & Services			
GEM2020	Insurance & Retirement Planning	2	4
GEM2021	Investment Basics & Planning for Retirement	2	4
GEM3010	Financial Planning Ethics & the Silver Client	3	4
Elective Cluster Subjects - Travel & Leisure			
BHT2005	Event Management	2	4
GEM2015	Tourism, Services & Trends	2	4
GEM2016	Itinerary Planning & Management	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

PSYCHOLOGY STUDIES

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)*

Imagine having an edge over others in understanding how people think and why they do what they do. What if you could really understand what motivates people, makes them tick and help them reach their full potential? If you enjoy working with people and see yourself in a career which involves bringing the best out of them, then look no further.

This course will provide you with a broad foundation in the study of human behaviour and mental processes. You will explore a comprehensive range of core topics such as developmental and lifespan psychology, personality, social psychology and much more. You will learn first-hand that psychology is not just a theoretical discipline, and discover that it has many practical and meaningful applications across a wide variety of settings.

You will also be given a choice to specialise in one or more areas of study via elective clusters that will hone your career skills and let you explore topics of personal interest within and related to the field of psychology. For instance, you may opt for electives in areas such as psychology and industrial/ organisational applications, social services and community development, or early childhood intervention. The unique blend of our broad-based curriculum, the choice of different elective clusters, and a mixture of hands-on independent and group projects will equip you with the sound knowledge, critical thinking, problem solving and interpersonal skills that are valued by employers today.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Elective Subjects	: min 20 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Career Opportunities

Our graduates are well prepared to enter a variety of exciting career paths in human resource management, consumer research, advertising, marketing, education as well as social and community services. In addition, you will be well prepared for further studies with advanced standing in renowned universities. For example, graduates who aspire to become certified psychologists, education workers, social workers, counsellors, and HR managers may pursue higher degrees in related fields or other social science courses.

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”.

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 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, Literature in Chinese, Literature in Malay, Literature in Tamil, Media Studies (English) / Media Studies (Chinese), Music.

Applicants must have also sat for one of these subjects: Additional Mathematics, Art/ Art & Design, Business Studies, Chinese, Combined Humanities, Commerce, Commercial Studies, Creative 3D Animation, Design & Technology, Economics, Elementary Mathematics, Food & Nutrition, Geography, Higher Art, Higher Chinese, Higher Malay, Higher Music, Higher Tamil, History, Introduction to Enterprise Development, Literature in English, Literature in Chinese, Literature in Malay, Literature in Tamil, Malay, Media Studies (English), Media Studies (Chinese), Music, Principles of Accounts, Tamil.

** 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 Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GCS1001	Fundamentals of Public Speaking	1	3
GCS1002	Academic Writing	1	2
LEA1001	Leadership: Essential Attributes & Practice 1 (LEAP1)	1	1
LEA1002	Leadership: Essential Attributes & Practice 2 (LEAP2)	1	1
LEA1003	Leadership: Essential Attributes & Practice 3 (LEAP3)	1	1
GCS3001	Professional Communication Skills	3	3
GIP3001	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GPS1001	Foundation Psychology A (Mind, Brain & Behaviour)	1	3
GPS1002	Foundation Psychology B (People in Contexts)	1	3
GPS1004	Industrial & Organisational Psychology	1	4
GPS1005	Applied Psychology Research Project A (Non-Experimental Design)	1	4
GPS1007	Research Methods A (Non-Experimental Design)	1	4
GST1001	Principles of Statistics	1	4
GST1002	IT Applications for Humanities & Social Sciences	1	4
GST1003	Introductory Research Methods	1	4
GPS2001	Research Methods B (Experimental Design)	2	4
GPS2003	Physiological Psychology	2	4
GPS2005	Social Psychology	2	4
GPS2007	Developmental Psychology	2	4
GPS2017	Cognitive Psychology	2	4
GPS2021	Counselling Psychology	2	4
GPS2022	Educational & Child Psychology	2	4
GMP3001	Major Project	3	8
GPS3002	Assessment & Personality	3	4
GPS3003	Abnormal Psychology	3	4
GPS3004	Applied Psychology Research Project B (Experimental Design)	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Social Services & Community Development Electives			
GPS2010	Health Psychology	2	4
GPS2015	Psychology of Addictive Behaviours	2	4
GPS2020	Community Psychology	2	4
GPS3008	Psychology of Criminal Behaviour	3	4
Psychology & Early Childhood Intervention Electives			
GPS1018	Issues, Trends & Collaborations in Early Childhood Intervention	1	4
GPS1019	Curriculum Studies in Early Childhood Intervention	1	4
GPS2018	Classroom Management & Strategies in Early Childhood Intervention	2	4
GPS3007	Psychology of the Exceptional Child	3	4
GPS3009	Assessment, Evaluation & Programming in Early Childhood Intervention	3	4
Psychology & Industrial Organisational Applications Electives			
GPS2019	Applied Psychology in Human Resource	2	4
GPS2023	Cultural Psychology at Work	2	4
GPS3010	Training & Leadership Development	3	4
GPS3011	Human Factors Psychology	2	4
General Psychology Electives			
GPS2013	Independent Applied Psychological Studies	2	4
GPS2014	Contemporary Issues in Psychology	2	4
GPS3006	Special Project	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

Subject Synopses

ANT1003 Nutrition Fundamentals
This subject examines the role and importance of macro- and micronutrients in relation to the well- being 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.

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 an understanding of the sources and allocations of funds within a business enterprise, and an appreciation of the financial tools and techniques used by the financial manager in the management of funds and other financial resources.

BBS1001 Principles of Management
This subject provides 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 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.

GCS1001 Fundamentals of Public Speaking
This subject aims to help you become confident speakers. It equips you with the techniques to develop, deliver and evaluate speeches appropriate to a variety of contexts, including both impromptu and prepared situations.

GCS1002 Academic Writing
This subject aims to help develop your skills and confidence in writing for academic contexts. It takes you through the stages of the writing process, i.e., from planning through the development and production of academic papers.

GCS3001 Professional Communication Skills
This subject aims to hone your communication skills. Topics covered will include handling interviews, meeting skills, interpersonal skills and formal writing skills required in various forms of professional and career writing such as project proposals, application letters, resumes and more.

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 modeling 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 preschoolers' 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 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.

GEC1011 Early Years Global Citizenship
This subject highlights the interconnectedness of the world today through discussions on various global issues (e.g. sustainable development, acceptance of diversity) and explores strategies in developing young children's awareness of what it means to be a responsible global citizen.

GEC1012 Developing Digital Media for Early Years Education
This subject equips you with skills and knowledge required to develop digital teaching materials to be used in early childhood education settings.

GEC1013 Children's Film and Media
This subject explores the various types of children's film and media resources. You will explore developmentally appropriate film and media sources from a variety of genres. Through analysis of selected film and media sources, you will investigate the impact of media on the development and behaviour of young children, as well as their utility value to children's learning and development.

GEC1014 English Communication Skills for Early Years Practitioners
This subject aims to help you become more knowledgeable and confident in the use of English in various settings. You will gain effective spoken and written communication skills to help you serve as role models of Standard English. (This elective is offered to students who have not obtained a minimum of B4 in the GCE O level English Language or equivalent).

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.

GEC2002 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.

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 inter-disciplinary 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.

GEC2008 Creativity & the Arts

This subject provides you with fundamental art theories, two aspects of art forms: visual and performance arts, as well as significant trends in the classical and contemporary arts. It offers opportunities for an appreciation of visual and performance arts as well as the application of specific skills that foster creative abilities and skills in the conceptualisation of art portfolios.

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.

GEC2010 Early Years Cross-Cultural Studies

This subject will provide you with a deeper appreciation of how increasing globalisation and living in an environment with diverse cultures influence children's growth and development.

GEC2011 Aggressive Behaviour & Bullying in Children

This subject explores the causes and effects of problem behaviours such as aggression and bullying. You will explore strategies on identifying and helping both the bullies and victims, in order to create a safe environment and reduce long-term effects aggression and bullying.

GEC2012 Children's Literature

This subject examines literary works for children from various genres, across cultural contexts and time. You will revisit stories that are familiar childhood favourites. Through analysis of themes, plots and characterisation, you will also examine the ways in which literary representations of children and for children have changed.

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.

GEC2018 World's Children Literature

This subject provides an awareness of the importance and values of literature in children's development and learning. It offers opportunities for the appreciation of multicultural and international genres, as well as sub-genres of children's literature. You will learn how children can see themselves reflected in, and how they can explore the world around them, through literature. You will explore the literary elements of plot, characterisation, setting, style, theme and illustrations or pictures that accompany the text, to create a compelling story in an age-appropriate manner.

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. Students 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.

GEM2020 Insurance & Retirement Planning

This subject provides the key principles and concepts of insurance and retirement planning. It will elaborate on the basic principles of insurance and the key features of the major classes of insurance-related products. It will also highlight sections of the Financial Advisers Act which are essential to insurance and retirement planning.

GEM2021 Investment Basics & Investment Planning for Retirement

This subject provides the key principles and concepts of investment basics and investment planning for retirement. It will elaborate on basic investment strategies and the key features of the major classes of investment instruments. It will also highlight sections of the Financial Advisers Act which are essential to investment planning for retirement purpose.

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, socio-economic 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.

GEM3010 Financial Planning Ethics & the Silver Client
This subject provides the key principles and concepts of basic financial planning products such as life insurance, endowment insurance and investment-linked policy. It will elaborate on the rules and regulations of the Financial Advisers Act (FFA) and basic underwriting principles that would steer the Financial Adviser towards maintaining a high level of professional ethics.

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.

GIP3001 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.

GPS1001/1002 Foundation Psychology A / B
These two subjects, Foundation Psychology and B, provide 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 general psychology will be explored to enhance your understanding of the biological, cognitive and social bases of behaviour.

GPS1004 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 three primary areas, namely personnel, organisational and human factors psychology.

GPS1005 Applied Psychology Research Project A (Non-Experimental 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 non-experimental research project to better understand individuals in an applied setting. Students will be provided an opportunity to conduct a non-experimental research project from a range of relevant topics.

GPS1007 Research Methods A (Non-Experimental Design)
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 basic empirical research in psychology and the social sciences.

GPS1010 General Psychology
This subject provides 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 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 students with an overview of inclusive practices (including theories, issues, trends and research – internationally and within Asia). In particular, the subject aims to provide students 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.

GPS1019 Curriculum Studies in Early Childhood Intervention
This subject provides an overview of the variety of curricula and teaching approaches that can be adopted to support children with special needs. Such approaches will be considered for application in Singapore in the light of current and projected needs.

GPS2001 Research Methods B (Experimental Design)
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.

GPS2003 Physiological Psychology
This subject explores the relationship between physiological process and human behaviour, with particular emphasis on the function of the human nervous system and sensory systems.

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.

GPS2013 Independent Applied Psychological Studies
This subject builds upon your foundational skills in information literacy and research methods. You will be given the opportunity to explore an area of interest. In so doing, you will be further exposed to concepts and theories in psychology beyond what is offered through the range of subjects within the Psychology Studies course.

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.

GPS2015 Psychology of Addictive Behaviours
This subject discusses the psychological and social aspects behind addictive habits. You will explore how and why an individual engages in physical addictions (e.g., alcohol and drugs) and psychologically compulsive behaviours (e.g., gambling).

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.

GPS2019 Applied Psychology in Human Resource

This subject aims to equip you to apply the principles and theories of Industrial & Organisational Psychology to improve human resource functions across a broad range of organisations and industries. You will learn scientific and rigorous methods to carry out the following initiatives and interventions: Job analysis, recruitment, selection, performance management and appraisal, training and development, managing diversity in a globalised workplace, and HR and organisational diagnostic surveys. With these skills, you will be equipped to work alongside and complement HR practitioners in carrying out and refining HR functions and to support the execution of a variety of organisational interventions and initiatives (such as employee surveys, recruitment drives, etc).

GPS2020 Community Psychology

This subject helps you understand the ecological interaction between individual, group, organisational, community and societal factors and its effect on 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.

GPS2021 Counselling Psychology

This subject is 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.

GPS2022 Educational & Child Psychology

This subject provides an introduction to the psychological theories involved in the teaching and learning of children 8 years old and under. In addition to the behavioural, cognitive, and social-emotional aspects of learning, further exploration into the developmental changes and needs of children will be done, with emphasis on practices and experiences with family, school and community environments that contribute to development. The area of childhood problems will also be considered. The course will aid your understanding and ability to work effectively with children.

GPS2023 Cultural Psychology at Work

This subject provides an understanding of cross-cultural similarities and differences in areas of psychology such as enculturation, cognition, emotion, personality, self-concept, social behaviour, communication and health. You will be introduced to the assessment and research methods used in Cultural Psychology and learn to apply it to various aspects of the globalised business environment to address cross-cultural issues in selection, training, leadership, employee well-being and human performance. You will also be equipped to construct training programs to improve intercultural communication, understanding and competence in the multicultural workplace.

GPS3002 Assessment & Personality

This subject introduces the principles and techniques of psychological assessment. Underlying many psychological assessments is a theoretical position about personality. The subject examines how aspects of personality are theoretically operationalised and measured to enhance our understanding of relationships between personality theories and assessment. This hands-on subject provides opportunities to explore the application of tests in varied settings.

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.

GPS3004 Applied Psychology Research 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. Students will be required to conduct an experimental research project from a range of relevant topics.

GPS3006 Special Project

This subject builds upon your foundation in research and statistical methods, as well as prior experiences in conceptualising and conducting psychological research studies. You will get the opportunity to be involved in industry-related research projects and hone a number of core competencies in the study of psychology such as psychological measurement, data preparation and analysis, and the communication of research findings.

GPS3007 Psychology of the Exceptional Child

This subject focuses on individual differences in children. You will explore areas such as the emotional, social and learning characteristics of individuals who are exceptional, and gain a deeper understanding of the issues that impact the lives and behaviour of these individuals.

GPS3008 Psychology of the Criminal Behaviour

This subject focuses on raising awareness of the theoretical, psychological and developmental perspectives on criminal 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 also learn to evaluate the contribution of psychology to the explanation of criminal behaviour in a multidisciplinary framework.

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.

GPS3010 Training & Leadership Development

This course provides an overview of adult learning theory with an emphasis on the applied role that psychology plays in identifying training needs, designing effective learning programmes, the effective conduct and facilitation of training workshops, promoting transfer of training and evaluating training effectiveness. A special focus will be placed on tools and methods for developing critical workforce capabilities such as leadership and resilience.

GPS3011 Human Factors Psychology

This subject applies concepts about human perceptual and cognitive behaviour, abilities and limitations to enhance our understanding of human interaction with systems, technology and products in various applied settings and industries. Through practical applications, you will apply this knowledge to improve work performance and human-machine interactions.

GST1001 Principles of Statistics

The use of empirical evidence and statistical analysis is crucial in the field of social sciences (e.g., psychology, sociology and education). This subject provides you with a basic understanding and use of statistical concepts in data analysis. Concepts such as descriptive and inferential statistics will be introduced.

GST1002 IT Applications for Humanities & Social Sciences

This subject aims to provide students with basic knowledge of information-communication technology that caters to the unique requirements for social science research, with an emphasis on the usage of software for research analysis and presentation.

GST1003 Introductory Research Methods

This subject aims to provide students with an overview of research methodology in social sciences. This will include an introduction to the theoretical enterprise of scientific research, research ethics, and also rudimentary research methods and concepts, in order to prepare students for more advanced research methods subjects.

LEA1001/1002/1003 Leadership: Essential Attributes & Practice (LEAP)

This is a Leadership & Character Education programme that comprises three core subjects – LEAP 1, 2 & 3. It seeks to cultivate in students the dispositions (i.e. attitude, skills and knowledge) towards the development of their leadership competencies. It is a leadership programme that enables students to develop leadership life-skills that embrace character as the core foundation for their leadership credibility and influence.

SCHOOL OF INFORMATICS & IT

Contents

Walk into any bank, airport, school, office, hospital, park, theatre, train station and you will notice the pervasive power and influence of Information Technology. At the School of Informatics & IT, you will receive a strong foundation in IT and an understanding of specialised areas like big data, analytics, financial services, forensics, cyber security, game development and more.

As a leader in the field of IT education, we are recognised as a forward looking and progressive School, providing the widest 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 research, innovation and enterprise to nurture professionals who are ready for the industry. Communication skills 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, grooming and preparing you for the challenges of the workplace and giving 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. Participation in local and global community projects is something we strongly encourage. There are many opportunities for you to be involved in social outreach projects 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, EMC, Fujitsu, the Infocomm Development Authority of Singapore, IBM, Microsoft, 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

Advanced Cyber Security Training Facility

This facility has been set up in collaboration with the Singapore Infocomm Technology Security Authority (SITSA), under the Ministry of Home Affairs. It is the first of its kind in a polytechnic in Singapore and provides students with a programme to hone their skills in detecting and preventing cyber security threats through realistic hands-on training. Through this Centre, SITSA will impart and provide Cyber & Digital Security and Digital Forensics students with training in the latest methodologies to analyse and prevent cyber threats.

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.

Centre of Attachment for Business Analytics

The School of Informatics & IT is a Centre of Attachment (CoA) for Business Analytics. This is an initiative in collaboration with the Infocomm Development Authority of Singapore. The aim of the CoA is to equip people from industry with the necessary skills and knowledge in the use of statistics, statistical models and data mining tools for management reporting and strategic decisions. People from industry can be attached to the CoA. They will learn to develop, implement, and evaluate statistical models to support predictive modelling as well as define and implement testing methods to ensure the statistical models achieve the desired outcomes.

Centre for Digital Security & Investigations

This centre was set up in collaboration with the Ministry of Home Affairs' Singapore Infocomm Technology Security Authority (SITSA). It creates a realistic environment to train students in three key security areas of incident response, monitoring and audit, as well as digital artefact analysis. Here, students get the opportunity to work on real security incidents and simulated attacks. They also receive training in monitoring and identifying patterns of security attacks, correlate the incidents and trends to better predict and manage potential security incidents, and perform auditing and analysis of digital artefacts such as malware and mobile security.

Cloud Technology & Innovation Centre

This Centre is a joint laboratory of TP and Huawei that is dedicated to the research, development and teaching of cloud computing technology.

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.

Select-Start Studios

These Studios, located in the Serious Games Hub 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.

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.

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 IT Service Management Centre

Established in collaboration with IBM Singapore, this centre functions as a real-time learning enterprise that provides students with a holistic environment in which theory is put into practice as they focus on managing IT Systems, providing IT solutions to clients, monitoring service performance levels and adopting best practices that meet industry standards. The Centre is based on the IBM IT Services Framework which includes IBM's portfolio of products and practices to provide an integrated hands-on training on IT service management.

TP-IBM Security Operations Centre

The Security Operations Centre provides knowledge and skills training to staff and students in IBM's service management processes, methods and Security technologies. Staff and students get opportunities to work alongside IBM security professionals on security projects as well as leverage on IBM's Global Academic Initiative to support TP's IT 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-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. 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 Big Data Management and Business Analytics. Students taking part-time courses would also benefit from modules offered by this academy.

TP-RSA, Security Division of EMC Security Operations Centre

This Centre provides an environment equipped with the most advanced IT security and analysis technologies including RSA Security Analytics, SecOps, ECAT and Data Loss Prevention. RSA will impart knowledge and best practices on developing and managing an intelligence driven SOC operations to staff and students.

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, web analytics, 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.

Ui/Ux Future Lab

Also at the Serious Games Hub, we have the Ui (user interface) and Ux (user experience) labs where students 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 are equipped with the latest equipment such as 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.

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.

BIG DATA MANAGEMENT & GOVERNANCE

"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 acquire from this course.

- Eric Goh
Managing Director
EMC Computer Systems (South Asia) Pte Ltd

Did you know that Big Data was Germany's secret weapon at the World Cup 2014? (www.CIOinsights.com) It had teamed up with software giant SAP to create a custom match analysis tool that collected and analysed massive amounts of player performance data. Did you also know that shopping centres are leveraging on big data to study consumers' shopping patterns? Shopping malls are collecting data on shopping trends and profiles of customers in order to provide a better shopping experience to customers.

This is an exciting time for Big Data professionals, especially with the Singapore Government's recent announcement of making Singapore a global data and analytics hub (www.ida.gov.sg). The first polytechnic to offer a Big Data course, you will have opportunities to work with data at your fingertips. When you graduate, your skillsets will be in great demand by organisations. There are many opportunities and potential for you to excel in this area. Graduates with this diploma could also earn as much as 50 percent more than the average professional (www.indeed.com).

In your first year, you will be equipped with good IT foundation and be introduced to the key concepts in the emerging field of data science. In your second year, you will learn how to manage Big Data, such as those which Facebook and Google collect. You will also learn to ensure the quality of the data you extract and how to manage its privacy, because data acquisition may have a significant impact on businesses and lives. By your third year, you would have learnt how to 'mine' Big Data with analytics. You will work with companies or organisations, locally or overseas, on Big Data projects.

Career Opportunities

Graduates can expect good career prospects in hospitals, banks, government agencies as data specialists, data engineers, Big Data operations specialists, data virtualisation specialists, data administrators and data warehousing specialists. They can also pursue degrees in local and overseas universities.

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".

Minimum Entry Requirements

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

Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 88 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIC1C05	Computer Architecture	1	4
CIC1C05	Data Communications & Networking	1	4
CIC1C06	Database Information Systems	1	4
CIG1C01	Introduction to Data Science	1	3
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object Oriented Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C14	Data Structures & Algorithms	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CFI2C03	IT Project Management	2	4
CIA2C01	Data Warehouse Modelling	2	4
CIA2C02	Data Analytics & Presentation	2	4
CIG2C01	Big Data Architecture & Systems	2	4
CIG2C02	Programming for Big Data	2	4
CIG2C03	Big Data Acquisition & Quality Management	2	4
CIG2C04	Data Marshalling & Transformation	2	4
CIG2C05	Big Data Virtualisation Concepts & Techniques	2	4
CIG2C06	Data Security & Governance	2	4
CMC2C15	Operating Systems	2	4
CMP3202	Major Project	3	10

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CFI2C02	Business Intelligence Systems	2	4
CIA2C05	Data Mining Concepts & Techniques	2	4
CIA2E01	Text & Social Media Analytics	2	4
CIT3P51	Web Analytics	2	4
CMA2P51	Quantitative Techniques	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

BUSINESS INTELLIGENCE & ANALYTICS

We strongly support this course which aims to prepare more graduates in this area to meet global demands; which would also support Singapore's position as a business analytics competency centre for Asia.

- Francis Fong
Managing Director
SAS Institute Pte Ltd

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.
If you like Mathematics and Statistics, have a knack for spotting trends among seemingly unrelated facts, and 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 learn to:
• apply knowledge from Business, Analytics, IT and Project Management to propose business solutions that help companies succeed;

• gather information from a wide variety of sources, including social media platforms and websites in order to analyse consumer interests and plot trends;

• use project management skills to manage business analytics projects and deliver timely information and insights to customers and decision makers.

You will also undertake projects that equip you with real-world working experience and provide you important business domain knowledge that you require as a professional in this field. Furthermore, you will enjoy exciting opportunities for internship in local or overseas companies where you will gain valuable skills, working with diverse people in a real work environment. You can further your studies at local or overseas universities, leveraging on the advanced standing arrangements that we have.

Career Opportunities

Graduates can expect good employment prospects across many industries such as government, financial and banking institutions and consulting firms as business intelligence analysts, business analytics specialists, business analytics technology consultants, CRM analysts, data mining specialists, data warehousing specialists, text analytics specialists, web & social media analysts and data scientists.

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".

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, 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).

Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 87 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BRM1005	Marketing Fundamentals	1	4
CFI1C07	Database Information Systems	1	4
CFI1C11	Business Process Management	1	3
CIA1C02	Quantitative Analysis 2	1	3
CIA1C03	Analytics Research Methodologies	1	4
CIA1C04	Quantitative Analysis 1	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C13	Business Information Systems	1	3
CMC1C05	IT Infrastructure	1	4
CFI2C03	IT Project Management	2	4
CIA2C01	Data Warehouse Modelling	2	4
CIA2C02	Data Analytics & Presentation	2	4
CIA2C04	Business Intelligence Concepts & Techniques	2	4
CIA2C05	Data Mining Concepts & Techniques	2	4
CIA2C06	Business Intelligence Applications	2	4
CIA2C07	Predictive Analytics	2	4
CIA2C08	Systems Analysis & Design	2	4
CIA2C09	Quantitative Analysis 3	2	3
CIA2C10	Customer Relationship Management & Analytics	2	4
CMP3103	Major Project	3	10

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIA2E01	Text & Social Media Analytics	2	4
CIA2E02	Data Governance	2	4
CFI3E01	Financial Analytics	3	4
CIT3P51	Web Analytics	3	4
CIT3P71	IT Governance & Service Management	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

CYBER & DIGITAL SECURITY

Viruses, trojans and hackers – these are some of the dangers lurking on the Internet, crippling government and business operations and leading to financial losses. Developing counter measures against them requires creative problem solving skills and talent. Highly skilled information security professionals with strong technical foundation and creativity are vital in battling such cyber threats. If you aspire to be in this highly regarded profession, then join this exciting course.

This course brings significant value to Singapore's drive towards achieving a secure world-class cyber environment. As we become ever-increasingly interconnected, it is critical that we develop a skilled network of security professionals to prepare for a new era of security to enable a deeper level of e-trade and e-commerce.

- Janet Ang
Managing Director
IBM Singapore

In the first year, you will master IT and security fundamentals. In your second year, you will master competencies in security, ranging from network, system and application to cloud security and mobile security. You will receive training at our Centre for Digital Security & Investigations where you will use state-of-the-art facilities for hands-on practice in conducting vulnerability assessments of computer and application systems using ethical hacking tools and implementing intrusion prevention solutions. We also have our Advanced Cyber Security Training Facility, set-up with the Singapore Infocomm Technology Security Authority to provide hands-on training on ethical hacking and defending skills.

In your final year you will have experience working in a Security Operations Centre which we have set up with our industry partners, IBM and EMC. In addition, you will have opportunities to be attached to local and overseas IT security companies where you can apply your knowledge and skills to information security projects and real-life situations. Our students have been attached to organisations like EMC, IBM, Interpol, RedHat, PriceWaterhouseCoopers and OCBC Bank.

You will attain sought-after professional certifications, such as the Cisco Certified Network Associate (CCNA) and RedHat Certified System Administrator/ Engineer (RHCSA/RHCE). Our graduates can pursue degrees in local and overseas universities after completing this course, leveraging on advanced standing arrangements that we have with these institutions.

Career Opportunities

You can expect good employment opportunities with local and multinational businesses, governments, financial and banking institutions, and consulting firms as IT security specialists/ auditors, network and systems specialists, as well as IT security product developers and solutions providers.

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”.

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, 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).

Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 92 credit units
Elective Subjects	: min 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD1C02	Enterprise Networking	1	4
CCD1C03	Basic IT Security	1	3
CFI1C07	Database Information Systems	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C14	Data Structures & Algorithms	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
BLM2007	Legal Aspects of IT	2	4
CCD2C01	Internetworking Security	2	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
CCD2C09	Enterprise System Security & Assurance	2	4
CMC2C15	Operating Systems	2	4
CCD3C01	Security Technology & Innovation	3	4
CMP3601	Major Project	3	10

Course Structure

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD2E03	Cloud Computing & Security	2	4
CCD2E04	Malware Analysis	2	4
CFI2C03	IT Project Management	2	4
CFI2E01	IT Outsourcing	2	4
CMC2E04	Tourism Informatics	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

DIGITAL FORENSICS

The increasing complexity of cybercrimes coupled with the fast evolving digital landscape that we operate in today, presents a challenging and dynamic environment for the Police to operate in. It is thus reassuring that TP is developing a pool of skilled digital forensic professionals whom the Police can tap on in our fight against cybercrime.

- Technology Crime Division
Criminal Investigation Department
Singapore Police Force

Digital forensics involves the analysis of evidence from any digital sources that can be used to prosecute criminals who have committed offences such as stealing information, and hacking into computers and network systems. The increase in cybercrimes has led to a huge demand for digital forensics specialists who can assist in criminal investigations and homeland security. If you have an analytical and inquisitive mind, join us to become a computer forensics investigator. You will learn to seize, secure, examine and reconstruct digital evidence to unravel the mystery behind a computer-related crime or cyber security incident one byte at a time.

The first polytechnic to launch a digital forensics course, we have established strong industry links and capability in this field. You will be equipped with a broad knowledge of IT, psychology and criminal law, and in-depth knowledge of digital forensic techniques in retrieving digital evidence from computers and networks. In the first year, you will master IT fundamentals and build strong foundations in computer science.

In your second year, you will learn to collect, preserve and analyse different file systems, media, applications and networks for digital evidence in the Centre for Digital Security & Investigations. In addition, you will learn the legal aspects of presenting digital evidence for a court of law and acquire basic knowledge of psychology to understand the motivation behind criminal activities.

In your final year, you will have the experience of working in a Security Operations Centre which we have set up with our industry partners, IBM and EMC, where you will apply your investigative skills in the management of cyber-security incidence. In addition, you may also be attached to organisations such as Interpol, Singapore Police Force and KPMG for internships that allow you to integrate and use knowledge in real-life situations.

You will have the opportunity to attain professional certifications in networking, open source and digital forensics. Our graduates can look forward to furthering their studies by choosing from a range of courses at local or overseas universities, leveraging on the advanced standing arrangements that we have.

Career Opportunities

You can expect to work in financial institutions, government/ law enforcement agencies and consulting firms in positions such as digital forensic analysts/ researchers and IT security analysts/ auditors.

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”.

Minimum Entry Requirements

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

Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Core Subjects	: 95 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD1C02	Enterprise Networking	1	4
CDF1C01	Introduction to Digital Forensics	1	3
CFI1C07	Database Information Systems	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C14	Data Structures & Algorithms	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
GEN1016	Introduction to Psychology of Deviant Behaviour	1	3
BLM2008	Criminal Procedure for Forensic Analysts	2	4
CCD2C06	Servers Administration & Security	2	4
CCD2C08	Secure Web Applications	2	4
CDF2C01	Digital File Systems	2	4
CDF2C02	Digital Media Forensics	2	4
CDF2C03	Network Security & Forensics	2	4
CDF2C04	Investigation Methodology & Techniques	2	4
CDF2C05	Application Forensics	2	4
CDF2C06	Fraud Investigation & Audit	2	4
CMC2C15	Operating Systems	2	4
CMP3901	Major Project	3	10

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

FINANCIAL BUSINESS INFORMATICS

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.

- Alfred Lee
Managing Director,
Global Sales and Account Management, ASEAN
Thomson Reuters

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.

In your final year, you will get hands-on experience through attachments to banks and financial institutions. This will also provide you with the opportunity to use 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 completing the course, you can join the workforce or move on to undertake degree programmes in local or overseas universities, leveraging on the advanced standing arrangements we have with them.

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 as financial systems consultants, IT/business analysts or financial products settlements specialists.

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”.

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, 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 88 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Course Structure

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1007	Basic Business Finance	1	4
BAF1009	Fundamentals of Accounting	1	3
CFI1C07	Database Information Systems	1	4
CFI1C08	Financial Economics	1	4
CFI1C10	Core Banking & Financial Businesses	1	4
CFI1C11	Business Process Management	1	3
CIA1C04	Quantitative Analysis 1	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C09	Web Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C13	Business Information Systems	1	3
CMC1C05	IT Infrastructure	1	4
BAF2006	Fundamentals of Investment	2	4
CFI2C02	Business Intelligence Systems	2	4
CFI2C03	IT Project Management	2	4
CFI2C08	Fixed Income & Equities Processing	2	4
CFI2P14	Foreign Exchange & Money Market Processing	2	4
CIA2C08	Systems Analysis & Design	2	4
CFI3C01	Risk & Governance	3	4
CFI3C02	Wealth Management	3	4
CMP3801	Major Project	3	10

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CFI2E01	IT Outsourcing	2	4
CFI2E05	Derivatives & Structured Products	2	4
CIA2C10	Customer Relationship Management & Analytics	2	4
CFI3E01	Financial Analytics	3	4
CFI3E02	Mobile Banking	3	4
CFI3E03	Portfolio Performance Management	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

GAME DESIGN & DEVELOPMENT

As the game development industry moves towards more compelling and complex games even beyond the realm of entertainment, students today need to be equipped with the latest tools and techniques. This course utilises the latest industry-standard tools to equip their students with relevant skills for the fast-growing game development industry.

– V R Srivatsan
Managing Director, ASEAN
Autodesk Asia Pte Ltd

This is a thrilling time for the video games industry with Singapore growing in status as a hub for the most exciting game companies. Video game companies which have produced many of the world's best games have set up offices here alongside renowned video game publishers and development studios. Together, they complement Singapore's strategy to be a leader in the Interactive Digital Media landscape.

Any person can play a video game; but to successfully develop a game that excites, engages, and educates an audience requires skill. These include skills in concept – such as digital storyboarding, production – including 2D/3D animation, and publication – involving the business of video games.

Our partnership with Autodesk and Unity will give you a unique advantage in working with the leading tools in the game industry. In addition, you will be part of the team which developed the first games course in Singapore to incorporate Autodesk Gameware into its curriculum.

Our subjects allow you to have a strong understanding of and experience in the various aspects of the game production pipeline, giving you a firm grasp of the end-to-end process in developing 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 on a Major Project to develop a showcase portfolio. Some of our students' projects include commercially available iPhone games, as well as games for local companies and organisations. You will also have the chance to be attached to leading game developers, overseas companies and universities for your internship.

Upon graduation, you can join the workforce or further your studies at local and overseas universities.

Career Opportunities

You will graduate with the skills to fill the following types of positions: game designers, graphics software developers, game content developers, game programmers and mobile game developers.

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".

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, 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).

Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 84 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CFI1C07	Database Information Systems	1	4
CGE1C06	Game Design	1	4
CGE1C09	Introduction to Computer Games	1	3
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C14	Data Structures & Algorithms	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CGE2C04	Introduction to Game AI	2	4
CGE2C07	3D Game Texturing, Lighting & Animation	2	4
CGE2C12	Game Modelling	2	4
CGE2C15	Game Math & Physics	2	4
CGE2C16	Game Development	2	4
CGE2C17	Game Development Project	2	4
CMC2C15	Operating Systems	2	4
CGE3C06	Game Production & Publishing	3	4
CMP3702	Major Project	3	10

Course Structure

Diploma Subjects - Elective Clusters

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Advanced Game Development			
CGE2E02	Graphics Programming	2	4
CGE2P11	Advanced Game AI	2	4
CGE3C02	Mobile Game Programming	3	4
3D Game Design & Development			
CGE2P21	Advanced Game Modelling	2	4
CGE2P22	Advanced Game Design	2	4
CGE3P21	Game Engine Scripting	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

INFORMATION TECHNOLOGY

"More than 3 billion people with devices will be leveraging on cloud services that cut across work and life. Computational thinking is a fundamental skillset for problem solving and for driving innovative products and services. Students from this course will be well-placed to lead future industry trends, and groomed to solve real world problems. This course provides a strong foundation for nurturing outstanding IT professionals who will benefit the industry when they graduate.

- Jessica Tan
Managing Director
Microsoft Singapore Pte Ltd

Are you interested in creating IT solutions for the world around you? Are you interested in joining a vibrant industry that is at the forefront of innovation? Are you interested in a diploma course that gives you a general array of IT skills while offering the distinct advantage of branching out later into different areas?

Graduates from this course are able to use IT to transform the culture and environment of any business organisation, bank, hotel, airport, and hospital. They would be frontline innovators helping to bring software solutions to people and businesses through the use of technologies. If you enjoy solving problems and are passionate about developing solutions through IT, then consider this course in Information Technology.

You have two clusters of elective subjects to choose in this course:

- **Business Analytics Cluster**: focuses on analysing and interpreting data and converting them into useful insights for developing strategies for the organisation;

- **Project Management Cluster**: focuses on teaching you the knowledge and skills needed to manage IT projects.

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.

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. Our graduates have also gone on to pursue both undergraduate and postgraduate degrees in local and overseas universities, with a significant number receiving attractive scholarships to further their studies.

Career Opportunities

With a broad-based education in IT, your employment prospects are excellent. You will be able to fill positions as IT business analysts, application developers and systems analysts in government organisations, software houses, large multinational corporations, financial institutions.

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".

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, 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 88 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CFI1C07	Database Information Systems	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C13	Business Information Systems	1	3
CIT1C14	Data Structures & Algorithms	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CGE2C09	Software Engineering	2	4
CGE2C11	Object-Oriented Analysis & Design	2	4
CIT2C11	Enterprise Solutions & Entrepreneurship	2	4
CIT2C12	Advanced Data Structures & Algorithms	2	4
CIT2C13	Business Systems & Processes Integration	2	4
CIT2C14	Enterprise Web Development & Testing	2	4
CIT2E08	Mobile Device Programming	2	4
CIT2P32	Enterprise Security & Application Management	2	4
CIT2P44	Dynamic Web Application Development	2	4
CMC2C15	Operating Systems	2	4
CMP3102	Major Project	3	10

Course Structure

Diploma Subjects - Elective Clusters

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Business Analytics			
CFI2C02	Business Intelligence Systems	2	4
CIA2C10	Customer Relationship Management & Analytics	2	4
CIT3P51	Web Analytics	3	4
Project Management			
CFI2C03	IT Project Management	2	4
CMC2P42	IT Service Desk Management	2	4
CIT3P71	IT Governance & Service Management	3	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

MOBILE & NETWORK SERVICES

The Internet of Things allows billions of devices, sensors, cloud infrastructure and business intelligence tools to come together to enable people to make informed decisions. This helps businesses to drive more innovation and services. Cisco predicts that it will create a massive opportunity worth $14.4 trillion over the next decade. Graduates from this course would be in high demand as they would have acquired the right skills to develop smart applications and services to respond to industry's needs.

- Irving Tan
President Asia Pacific & Japan
Cisco Systems (USA) Pte Ltd

Imagine a world where billions of objects can sense, communicate and share information over the Internet. These interconnected objects have data regularly collected, analysed and used to help streamline business processes and provide innovative new services to increase productivity and save costs.

This course grooms you to become an expert in network systems. You will learn to develop Internet of Things (IoT) applications for various purposes on the latest cloud and mobile phone platforms. You will also be trained in the best practices and use state-of-the-art tools from IT Service Management (ITSM) industry giants in our TP-IBM IT Service Management Centre, which is the first 'live' centre in an institution in Asia to offer real-life ITSM practice.

You will have the choice of specialising in the area of IT Service Management or Advanced IoT. Through these options, you will acquire specific skills to help manage IT services for an organisation and create innovative IoT apps that can enhance the lives of people and business processes.

You will have a chance to work with companies such as Cisco Systems and IBM on projects. Our Student Internship Programme also allows you to gain valuable experience and exposure which prepares you as a professional. To provide you an edge when you graduate, the course also prepares you for professional certifications such as the Cisco Certified Network Associate (CCNA) and IT Infrastructure Library (ITIL), awarded by Cisco Systems and IBM respectively.

Upon completing the course, you can join the workforce or pursue a degree in the local or overseas universities.

Career Opportunities

Upon successful completion of the course, you can enter a variety of challenging and rewarding careers as network administrators/ engineers, computer systems and server administrators, wireless systems specialists, associate infrastructure analysts, customer support engineers, IT customer service executives, IT operations specialists and mobile system development specialists.

Application

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Minimum Entry Requirements

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Any two other subjects, excluding CCA	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).

Note: Applicants with complete colour vision deficiency are not eligible to apply for this course.

** 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).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 84 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
LEA1001	Leadership: Essential Attributes & Practice 1	1	1
LEA1002	Leadership: Essential Attributes & Practice 2	1	1
LEA1003	Leadership: Essential Attributes & Practice 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CFI1C07	Database Information Systems	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CIM1C07	Human Computer Interaction	1	4
CIT1C12	Introduction to Computing	1	1
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CIT1C14	Data Structures & Algorithms	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CMC1C05	IT Infrastructure	1	4
CMC1C06	Introduction to the Internet of Things	1	4
CCD2C06	Servers Administration & Security	2	4
CCD2E03	Cloud Computing & Security	2	4
CMC2C10	Server Side Software Development	2	4
CMC2C11	Mobile & Wireless Networking	2	4
CMC2C15	Operating Systems	2	4
CMC2C16	IoT Application Development	2	4
CMC2C17	Smart Systems Development	2	4
CMC2P23	Internetworking Technologies	2	4
CMC3C02	Software-Defined Networking	3	4
CMP3402	Major Project	3	10

Course Structure

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Advanced IoT			
CMC2P51	IoT Data Management	2	4
CMC2P52	IoT Security & Privacy	2	4
CMC2P53	IoT System Design	2	4
IT Service Management Option			
CCD2C05	IT Security Management & Audit	2	4
CMC2P41	IT Infrastructure Management	2	4
CMC2P42	IT Service Desk Management	2	4

Cross-Disciplinary Subjects

Students are required to obtain a minimum of 9 credit units from the list of Cross-Disciplinary Subjects.

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.

BAF1009 Fundamentals of Accounting

This subject covers double-entry bookkeeping, profit determination and contents of financial reports for sole proprietorship businesses. You will have opportunities through various learning methods to apply the knowledge to real world situations.

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.

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.

BLM2008 Criminal Procedure for Forensic Analysts

This subject provides digital forensic professionals with an understanding of the criminal procedure and rules of evidence in Singapore necessary for the work of digital forensic analysts.

BRM1005 Marketing Fundamentals

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

CCD1C02 Enterprise Networking

This subject covers the enterprise wired and wireless networking concepts. Basic theories of routing and switching, wireless architecture and their applications in an enterprise network environment will be discussed. You will learn the knowledge and skills to design, install and configure small to medium-sized wired and wireless networks.

CCD1C03 Basic IT Security

This subject covers basic elements on the topic of IT security, reviews operational planning and practices, and provides a foundation for discussion and implementation of security strategies to minimise operational risks in an organisation. You will understand the theoretical, practical and ethical aspects of basic IT security.

CCD2C01 Internetworking Security

This subject introduces you to internetworking security technologies, including Wide Area Network (WAN) and remote access, and the security techniques from host to Internet security. You will learn how to secure both wired and wireless access over an internetwork.

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 would 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 counter-measures. 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

This subject covers the design of security architecture typically implemented for an enterprise. It includes conducting risk assessment, integrating and testing the security of database and information systems for an organisation to ensure compliance, as well as exercising incident response procedures to contain security breaches.

CCD2E03 Cloud Computing & Security

This subject covers topics such as technologies used in cloud computing, the motivations that drive the development of these technologies, the implementation of cloud based services such as infrastructure-as-a-service (IAAS). Other topics include the assessment of the security risks that arise from using cloud computing and the identification of controls used to mitigate security risks.

CCD2E04 Malware Analysis

You will learn topics such as the tools available to perform basic static and dynamic analysis on malware to determine the purpose of such malicious code.

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.

CCS1001 Effective Interpersonal Communication

This subject introduces you to the principles of effective interpersonal communication. You will learn to consider the message, audience, purpose and strategy in all communicative acts. You will also learn the appropriate conventions to observe in social interaction and how to engage in and sustain conversations.

CCS1002 Communication in the Workplace

This subject aims to equip you with the knowledge and skills to obtain employment and to develop confidence in handling both interpersonal skills and business correspondence in the workplace. You will learn job hunt skills. You will also discover ways to communicate effectively and tactfully in the workplace. You will learn to show sensitivity to your audience by using the concepts of message, audience, purpose and strategy.

CCS1003 Information Literacy for Effective Communication

This subject introduces you to research process skills to enable you to plan, prepare and present reports in written and oral form. You will learn to consider the message, audience, purpose and strategy when preparing reports and oral presentations.

CCS1004 The Essentials of Persuasive Presentations

This subject deals with the general principles of persuasion. You will be taught persuasive strategies to write a proposal and convince an audience about an idea, product or service. You will also be taught to consider the message, audience, purpose and strategy in written and oral presentations.

CDF1C01 Introduction to Digital Forensics

This subject introduces the principles of using digital evidence in forensic investigations and how this may lead to liturgical or non-liturgical proceedings.

CDF2C01 Digital File Systems

This subject introduces the principles of the most common media types and file systems found in operating systems and other digital media types.

CDF2C02 Digital Media Forensics

This subject covers three main areas: Mobile Device Forensics, Image & Video Forensics, and Correlation & Artificial Intelligence. Besides learning how to use different tools to extract and analyse digital media data from various mobile devices, you will also learn the fundamental elements of digital photos and digital videos. You will be taught to use different image and video enhancement techniques to process evidence for investigation purposes, matching and correlation techniques, and the use of artificial intelligence.

CDF2C03 Network Security & Forensics

This subject covers the traffic analysis of data sources from various network equipment and systems, such as Web proxies, firewalls, intrusion detection systems, routers and switches, which may contain evidence that can be used to solve a security incident. The topics included are the design and implementation of a secured enterprise network, as well as the analysis of network traffic and logs collected from different data sources in a network to understand attacks and trace suspect activities.

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.

CDF2C06 Fraud Investigation & Audit

This subject will cover how computers are used as a tool for fraud, including Internet and E-commerce frauds. Security auditing and testing tools, techniques that can be used in the detection and investigation of computer fraud and the implementation of appropriate audit strategies to mitigate incidents of fraud in an enterprise will also be covered.

CFI1C07 Database Information Systems

This subject will introduce you to the fundamental concepts of relational database systems, the design methods specific to relational database and the techniques of implementing relational databases. It will also cover database manipulation using a database query language.

CFI1C08 Financial Economics

This subject covers basic microeconomic and macroeconomic principles as well as the role and concepts of money and interest rates in the monetary system. The functions of the government as a regulatory body and the impact of government policies in the financial market will also be covered.

CFI1C10 Core Banking & Financial Businesses

This subject covers core banking services and processes in the retail, commercial and investment banks. Supporting systems and technologies that are used to meet strategic, operational and regulatory requirements in the banks are also introduced.

CFI1C11 Business Process Management

This subject covers business processes, process modelling and analysis techniques. It will also cover topics on streamlining processes and implementing simple processes automation.

CFI2C02 Business Intelligence Systems

This subject introduces concepts and techniques of turning raw data from various sources into information to help companies better manage their performance. It also covers data warehousing concepts, principles and applications of Business Intelligence and the underlying building technologies.

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.

CFI2C08 Fixed Income & Equities Processing

This subject covers the concepts, benefits and associated risks of the Fixed Income and Equities class. It also covers deal processing and trade settlement of related products using financial application systems.

CFI2E01 IT Outsourcing
This subject introduces you to the key concepts of IT Outsourcing. The topics that are covered in this subject include the rationale for outsourcing, the different types of outsourcing, Request for Proposal (RFP) and Service Level Agreement (SLA), problem management and change management. You will also learn about the risks and legal issues associated with outsourcing.

CFI2E05 Derivatives & Structured Products
This subject covers the concepts of prime brokerage and collateral management, and their applicability to the various financial products and the processes involved. It also covers the concepts for the various types of financial derivatives and structured products; deal processing and trade settlement of related products by using financial application systems.

CFI2P14 Foreign Exchange & Money Market Processing
This subject covers concepts of Foreign Exchange and Money Market, instruments and trade processes involved. Trade processes include settlement, reconciliation and revaluation of trades. Analyses of trades and the related risks in Foreign Exchange and Money Market will also be covered.

CFI3C01 Risk & 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.

CFI3C02 Wealth Management
This subject introduces the financial planning concepts and techniques used in designing a portfolio that meets the varied needs of high net worth individuals and business owners. Topics covered include the wealth management advisory process, investment and portfolio management, client relationship management, investment fund products and other financial products like life assurance and taxation issues.

CFI3E01 Financial Analytics
This subject covers the concepts and techniques behind predictive analysis, scoring models, and the development of financial models as well as how they can be harnessed to bring greater value to organisations in the banking and finance industry.

CFI3E02 Mobile Banking
This subject introduces the services and applications offered by the mobile platform in the banking and finance industries. The concepts of designing and implementing simple mobile applications that are relevant to financial services will also be covered.

CFI3E03 Portfolio Performance Management
This subject introduces portfolio theory and the various models of portfolio management applied by organisations today. It will also cover technical analysis and industry-company analysis using current tools and techniques.

CGE1C06 Game Design
The 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.

CGE1C09 Introduction to Computer Games
This subject aims to equip you with an understanding of the game industry, its current practices, and how a modern video game is created. This will lay the foundation for practical game development subjects later in the course. This subject introduces the history of games and how they have evolved, different common genres of games today, and the impact of games on society. Other topics covered include the state of the industry, how games are developed today, and current and future trends.

CGE2C04 Introduction to Game AI
This subject introduces the skills to use introductory Artificial Intelligence (AI) concepts which are crucial to games development. It emphasises techniques such as Decision Making and Navigation for the application of Artificial Intelligence within game development. The subject covers basic AI techniques to give game characters the appearance of intelligent movement and decision making, as well as the implementation of AI techniques in a suitable programming language.

CGE2C07 3D Game Texturing, Lighting & Animation
This subject provides you with the knowledge to produce key frame based biped animation and Tangent Space Normal map for real-time shader. It covers advanced texturing techniques such as Tangent Space Normal Mapping and real-time shader set-up via the 3D authoring tool's interactive development environment (IDE) interface. You will also be introduced to real-time 3D lighting parameters and biped animation.

CGE2C09 Software Engineering
The subject covers an overview of the entire SDLC from requirements gathering to deployment of a software project. Topics such as software development paradigms, software process metrics, configuration management, software quality assurance and the fundamentals of project planning will also be covered.

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. 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.

CGE2E02 Graphics Programming
This subject introduces you to the theory and technical skills required to program computer graphics for games. You will be able to make use of the programmable graphics pipeline to program basic 2D and 3D computer graphics. It also covers basic computer graphics concepts in the context of the programmable graphics pipeline such as colour, lighting, polygons and textures, as well as more advanced ones such as fog, alpha blending and computer graphics optimisation.

CGE2P11 Advanced Game AI
This subject covers the development of techniques that are required to develop industry-level video game AI, including the key concepts of Decision-Making and Navigation, within a game environment.

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).

CGE2P22 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 areas 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.

CGE3C02 Mobile Game Programming

This subject aims to equip you with programming skills and knowledge to develop mobile games for common mobile devices currently available in the market, to optimise code to suit mobile application life-cycles, to test application on emulators and devices, and to build a simple framework for games. It also introduces Software Development Kits of mobile platforms, and how to use them to write games to run on embedded devices. You will learn about the mobile market landscape and the tools and platforms used for mobile games.

CGE3C06 Game Production & Publishing

This subject covers aspects of marketing and business planning specific to games and areas such as quality assurance and testing to ready the products for publishing onto various platforms for games. You will acquire the skills and knowledge to see through a game from the pre-production stages which include the business and marketing aspects of the game to the final stages of publishing.

CGE3P21 Game Engine Scripting

This subject aims to equip you with skills and knowledge of game engines to develop individual scripts within the engine and to analyse, assemble and understand the game engine elements within a game. It covers the use of game engines within games, from how the user may interface with the engine to how the engine interfaces with the other areas in the game. The subject uses standardised general-purpose modelling languages for conception of ideas and you will implement code within specific areas, such as emitting particles and activating cut scenes.

CIA1C02 Quantitative Analysis 2

This subject equips you with statistical knowledge and skills that will enable you to analyse statistical problems. You will be able to make comparison between two or more population data to determine the relationship between them. The subject covers linear regression and correlation between a dependent variable and independent variable. Analysis of variance and chi-squared tests will also be covered.

CIA1C03 Analytics Research Methodologies

This subject provides you with the knowledge and skills to plan and conduct analytics research to collect and transform data. It covers the concepts of research design, data collection and transformation strategies, design of research process, crafting of questionnaires and interviews, ethical considerations in the research process. It will also provide a survey of analytics applications and software tools that could be used in the research process.

CIA1C04 Quantitative Analysis 1

This subject equips you with the knowledge and skills to collect, measure and represent data graphically. You will be able to use inferential statistics to draw conclusions. The subject covers basic statistical concepts with emphasis on data analysis and presentation, frequency distributions, probability theory, probability distribution, statistical inference and hypothesis testing.

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.

CIA2C02 Data Analytics & Presentation

This subject equips you with knowledge and skills to process data, techniques of analysing data and presenting analysed data using analytics software applications. The subject covers graphing fundamentals, graphing properties and building dashboard for reporting purposes using relevant statistical modelling and analysis techniques. You will also learn how to prepare and present reports on data analysis to support managerial decision making.

CIA2C04 Business Intelligence Concepts & Techniques

This subject equips you with knowledge and skills to integrate data and organise them into analytical reports for an organisation. The subject covers Business Intelligence (BI) concepts and techniques of turning raw data from various sources into information, and implementing BI applications to help companies manage their business performance.

CIA2C05 Data Mining Concepts & Techniques

This subject equips you with 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. The subject covers concepts, methodology, techniques and application of data mining. You will also learn several popular data mining techniques, such as cluster analysis, association analysis and decision tree.

CIA2C06 Business Intelligence Applications

This subject equips you with knowledge and skills to develop Business Intelligence applications for an organisation so that the organisation can align its business performance 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.

CIA2C07 Predictive Analytics

This subject equips you with knowledge and skills to create a predictive model based on historical data to predict future trends and behaviours. The subject covers Multiple Linear Regression, Logistic Regression, Decision Trees, and some other techniques such as neural networks.

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. The subject covers the concepts of system requirements analysis of a 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.

CIA2C09 Quantitative Analysis 3

This subject equips you with the knowledge and skills to apply statistical concepts in the analysis of economic data, social science data and the data gathered from other domain areas. It covers non-parametric statistics, two-way Analysis of Variance (ANOVA) and multivariate analysis, including their applications in economics, social science and other domains.

CIA2C10 Customer Relationship Management & Analytics

This subject equips you with knowledge and skills to apply the concepts of Customer Relationship Management (CRM) and CRM systems in businesses, and analyse CRM data to help improve business performance. It covers the concepts of CRM, customer portfolio management, customer data analytics, and customer lifecycle. You will also learn the applications of CRM in marketing, sales force automation and service automation.

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 categorization, cluster analysis and sentiment analysis.

CIA2E02 Data Governance

This subject equips you with the knowledge and skills to assess, manage, improve, monitor, and protect the use of organisational data. It covers the concepts of data stewardship, data quality, data architecture and risk management for enterprise data.

CIC1C05 Computer Architecture

This subject introduces the architecture and organisation of the digital components of a computer. This will also include studying the various mobile devices. You will also learn about the central processing unit, bus, memory and the input/output interfaces of a computer.

CIC1C06 Data Communications & Networking

The subject equips you with the skills and knowledge to design, configure and implement a wired Local Area Network (LAN) for resource sharing and communication. You will be taught the theoretical and practical aspects of data communications and networking. Topics include Open Systems Interconnect (OSI) reference model, Transmission Control Protocol/ Internet Protocol (TCP/IP) networking model, data communications hardware and software and their associated standards.

CIG1C01 Introduction to Data Science
This subject introduces you to the key concepts in the emerging field of data science. The data science life-cycle, history and context, as well as the business value of analytics and big data will be covered in this subject.

CIG2C01 Big Data Architecture & Systems
This subject introduces you to the emerging data architectures driven by “Big Data” adoption. It covers new paradigms of data systems within the realm of “Big Data,” which evolved from Google, LinkedIn, and Facebook. You will be exposed to the concepts and techniques that have driven Big Data adoption and compare 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. Other languages for data integration and processing (such as R) will be covered as well.

CIG2C03 Big Data Acquisition & Quality Management
This subject equips you with the knowledge and skills to acquire very large unstructured data sets from a myriad of data sources and to ensure data quality. It covers the concepts, methods and techniques to extract, transform and load (ETL) Big Data sets. It also covers various data acquisition and query techniques used in practice such as web crawling, integration to social media platforms, text systems and machine logs. You will also learn the tools and techniques used for the management of data quality.

CIG2C04 Data Marshalling & Transformation
This subject provides you with the knowledge and skills to gather and transform data into a standardised format for network transmission and storage. It covers methods and tools used to covert data objects into data streams, standard industry data formats, and data marshalling in Big Data systems.

CIG2C05 Big Data Virtualisation Concepts & Techniques
This subject introduces you to the concepts and techniques of data virtualisation. It will cover approaches to data management that allow retrieval and manipulation of data through a virtualised data abstraction layer. Various techniques to accessing data in-place, as well as data abstraction and transformation techniques will be covered. You will also be introduced to the differences between data virtualisation and the traditional ETL approach.

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.

CIM1C07 Human Computer Interaction
This subject introduces how human behaviour can influence the design, development and the use of computer systems. It also introduces how to analyse, design and evaluate a range of interfaces, based on users’ needs and requirements. Topics covered include the principles of usability, user-centred design methodology and usability evaluation paradigms.

CIT1C05 Problem Solving & Programming
This subject introduces you to the fundamentals of problem solving and programming. These skills are taught through programming constructs as well as simple object-oriented concepts.

CIT1C06 Object-Oriented Programming
This subject introduces you to the principles and rationale behind an object-oriented approach to programming. Topics covered include objects and classes, composition, simple data structures, memory management, file input and output, inheritance and polymorphism. An object-oriented programming language is used to teach object-oriented concepts.

CIT1C09 Web Programming
This subject covers the concept of web programming, development of form-based web applications and data driven applications. It also covers the creation of web pages and session and state management.

CIT1C12 Introduction to Computing
This subject introduces the concepts of computing and the application of computing throughout history. Topics covered include the history of computing, programming languages, operating systems, database systems, networking and the Internet, as well as the impact of these on business operations and day-to-day communication.

CIT1C13 Business Information Systems
This subject covers the role of information systems in various business domains, the concepts of information and processes in businesses and e-commerce/ m-commerce technologies.

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 will also be covered.

CIT2C11 Enterprise Solutions & Entrepreneurship
This subject covers the foundations of entrepreneurship such as entrepreneurial process and styles, and introduces commonly used enterprise solutions and E-business concepts and models. The subject also covers the development of a business plan.

CIT2C12 Advanced Data Structures & Algorithms
This subject introduces the principles of advanced data structures. Topics covered include analysis of algorithms, recursive algorithms, algorithmic design, advanced sorting and algorithms on data structures such as trees, graphs and heaps.

CIT2C13 Business Systems & Processes Integration
The subject covers topics such as intra and inter organisational integration, data integration methods, message oriented integration techniques and Service-Oriented Architecture (SOA) based enterprise integration. You will use a development tool to design and implement solutions to integrate business systems and processes in order to improve business efficiency and effectiveness.

CIT2C14 Enterprise Web Development & Testing
This subject introduces you to the principles of Web 2.0 technologies, web services and testing of enterprise web applications. Topics covered include client-side scripting, Web 2.0 Application Programming Interfaces, web services and web testing techniques. An Integrated Development Environment will be used to design, implement, test and deploy an enterprise web application that incorporates Web 2.0 technologies, web services and databases.

CIT2E08 Mobile Device Programming
This subject covers the fundamentals and concepts of developing mobile applications using a programming language. Topics covered include an overview of the mobile industry, user interface and mobile application development on a specific mobile platform.

CIT2P32 Enterprise Security & Application Management
The subject will cover topics on security threats and how they can be prevented, detected or reduced, symmetric and asymmetric cryptography technologies, and methods to identify, evaluate and ensure good security practises in application development.

CIT2P44 Dynamic Web Application Development
This subject covers the concepts and implementation of dynamic web-based applications. Topics covered include designing web pages and implementation of the business and data layers of a web application. Technological and design issues of web-based application development will also be discussed.

CIT3P51 Web Analytics
The subject covers topics such as the underlying concepts of web analytics and related issues, trends and best practices. Measurement and analysis of web metrics and application of web analytics to search engine optimisation and marketing will also be discussed.

CIT3P71 IT Governance & Service Management
This subject covers concepts, frameworks and best practices in IT service management and IT governance, based on the IT Infrastructure Library (ITIL) and Control Objectives for Information and Related Technologies (COBIT) respectively. The use of ITIL processes and functions to support and operate the IT Service Desk will also be covered.

CMA1C01 Computing Mathematics 1
This subject equips you with the ability to use mathematics and mathematical processes as tools for developing algorithms in computing and other real-life applications. You will also be equipped with the knowledge and skills to do reasoning, proof and induction. The subject covers logic, sequences and mathematical induction, and sets. You will also learn the fundamental concepts of mathematics needed for the other core computing subjects.

CMA1C02 Computing Mathematics 2
This subject equips you with the ability to use mathematics and mathematical processes as tools for developing algorithms in computing and other real-life applications. You will also be equipped with the knowledge and skills to analyse numerical information. The subject covers functions, counting, probability and recursion. You will also learn the fundamental concepts of mathematics needed for the other core computing subjects.

CMC1C05 IT Infrastructure
This subject teaches you how to integrate IT infrastructure in order to communicate and share information. The topics covered include networking concepts, computer systems for interacting with the network, and security concepts that enable one to keep the IT infrastructure safe.

CMC1C06 Introduction to the Internet of Things
This subject covers the concepts of the Internet of Things (IoT), its conceptual framework and how the IoT contributes to business and daily life. It will also cover the IoT architecture and gives an overview of the core technologies required for supporting IoT. It also covers typical application scenarios in the IoT.

CMA2P51 Quantitative Techniques
This subject provides you with the knowledge and skills to perform data and statistical analysis and familiarise students to the tools used for performing these analyses. The subject covers the concepts of statistical inference, hypothesis testing, linear regression and correlation analysis. You will use software tools to perform these analyses and make decisions based on the analysis results.

CMC2C10 Server Side Software Development
This subject equips you with the knowledge and skills to develop and deploy scalable server-side software. You will be able to develop the backend modules which provide services to the heterogeneous desktop and mobile clients. The subject focuses on creating an understanding of event driven programming, and business and data access objects development in a client-server architecture.

CMC2C11 Mobile & Wireless Networking
This subject covers the various concepts and principles in mobile communication and wireless networking. Basic theories on mobile and wireless architecture and their applications will be discussed. You will also learn how to secure, troubleshoot and analyse wireless systems.

CMC2C15 Operating Systems
This subject introduces the structure, functions and mechanisms of operating systems. Topics covered include the basics of operating systems, the functions and goals of the main managers of operating systems as well as the design underlying some of the operating systems in practice.

CMC2C16 IoT Application Development
This subject equips you with the knowledge and skills to build interactive systems, using a combination of hardware, embedded software, web services and cloud computing platform that can sense and respond intelligently to inputs from smart devices in the real world. It covers the concepts of distributed system architectures in computing, the design principles of connected devices, prototyping techniques and techniques for writing web services.

CMC2C17 Smart Systems Development
This subject equips you with the knowledge and skills to design and develop mobile applications taking into account IoT and its implications.

CMC2E04 Tourism Informatics
This subject focuses on developing your skills to understand the issues encountered in the tourism industry and to propose IT solutions to address them. Topics covered include introduction to tourism, IT systems in tourism, and IT solutions for the tourism industry.

CMC2P23 Internetworking Technologies
This subject covers internetworking technologies and protocols for enterprise network environments. Concepts in network scalability, scalable routing/ switching technologies and protocols are also taught.

CMC2P41 IT Infrastructure Management
This subject introduces the concept and framework of IT Service Management, and the 12 ITIL (IT Infrastructure Library) processes used in implementing and operating enterprise IT infrastructure systems.

CMC2P42 IT Service Desk Management
This subject introduces the concept and framework of IT Service Desk Management, and the ITIL (IT Infrastructure Library) processes and functions used in supporting and operating IT service desks.

CMC2P51 IoT Data Management
This subject equips you with the knowledge and skills to apply techniques and tools to store, manage and analyse the massive data generated by smart devices in real time efficiently. It will cover topics that include data security and privacy, the real time big data analytics stack and the five phase process model (data distillation, model development, validation and deployment, real-time scoring and model refresh) for real time analytics. You will also learn the various tools used for supporting real time analytics.

CMC2P52 IoT Security & Privacy
This subject introduces security and privacy issues in the implementation of IoT applications and services. It will cover topics that the encryption and authentication technologies, IP-based security solutions and privacy support through data abstraction, data anonymisation, data integration and data synchronisation.

CMC2P53 IoT System Design
This subject equips you with the knowledge and skills to apply design techniques when designing an Internet of Things system. You will cover topics that include the design principles for connected devices, prototyping of embedded devices and prototyping of online components.

CMC3C02 Software-Defined Networking
This subject equips you with the knowledge and skills to design, program and configure software-defined network (SDN) controllers, switches (physical and virtual), and virtualisation overlays. Topics covered include SDN architecture, standards such as the OpenFlow Standard, use of SDN in Data Centres and troubleshooting techniques using SDN.

CMP3102 Major Project
In this subject, you apply the skills and knowledge in Software Engineering, acquired from the various Diploma in IT subjects and in business domain electives, to a project. You will analyse, design, develop, implement and test viable and working information systems and solutions. You will be required to work in teams to manage your project development, and to present and demonstrate your systems. You will learn to handle problems and difficulties inherent in project work where teamwork and co-operation are important success factors. Concurrently, you will acquire new knowledge in technology and new skills in project management, problem solving, communication and interpersonal skills which will serve you well as you embark on your careers as IT professionals.

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 final group product. 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 involves the integration of knowledge and skills developed from the various subjects in the course. It helps you develop a practical understanding of the products, methodologies, processes, systems, project management and presentation skills needed for big data management and governance application projects. You will work in a team to develop, present and demonstrate a solution to a problem. This provides an opportunity for you to experience group work and the problems and difficulties inherent in project work where teamwork and cooperation are important success factors.

CMP3402 Major Project
This subject involves the integration of knowledge and skills acquired from the various subjects in the Mobile & Network Services curriculum. It fosters a practical understanding of mobile and network services, systems development methodology, advanced mobile application programming, mobile software testing, quality assurance, project management, and presentation skills.

CMP3601 Major Project
This project involves the integration of knowledge and skills developed from the various subjects in the course. It helps you develop a practical understanding of development methodology, programming and design techniques, evaluation processes, project management and presentation skills for security related systems projects. You are required to work in teams and present and demonstrate your solutions and products.

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. You will work in teams to present the solutions you create and demonstrate the products you develop.

CMP3801 Major Project
This project involves the integration of knowledge and skills developed from the various subjects in the course. It helps you develop a practical understanding of the products, methodologies, processes, systems, project management and presentation skills needed for the financial information systems projects. You will work in a team to develop, present and demonstrate your solution to a problem. This provides an avenue for you to experience group work and the problems and difficulties inherent in project work where teamwork and co-operation are important success factors.

CMP3901 Major Project
This project involves the integration of analysis, design, development, implementation, testing, project management, presentation, and interpersonal skills, as well as the acquisition of new skills in a domain-specific area to solve real-life problems.

CSI3001 Student Internship Programme
The Programme exposes you to an industry environment and is an integral part of the curriculum. Immersion in a real working environment will enhance your understanding of the application of IT in an organisation, and provide an opportunity for you to grow into responsible professionals. You will be expected to show sensitivity to the needs of your clients and organisations as you apply and integrate the knowledge and skills acquired in IT and domain areas to the work you are assigned. You will also be expected to demonstrate independence, initiative, creativity, strong conceptual thinking, technical proficiency and sensitivity to the needs of clients.

GEN1016 Introduction to Psychology of Deviant Behaviour
This subject introduces you to the theoretical and psychological perspectives of human behaviour. It will examine the psychological factors that relate to deviance and crime on a general level with specific focus on offences conducted with the assistance and use of digital and computer technology. Through this subject, you will be able to appreciate the contribution of psychology and apply it to an investigative process model.

LEA1001/1002/1003 Leadership: Essential Attributes & Practice (LEAP)
This programme comprises three core subjects – LEAP 1, 2 and 3. It seeks to cultivate in students the dispositions (i.e. attitude, skills and knowledge) towards the development of their leadership competencies. It is a character-based leadership programme that enables students to develop leadership life-skills that embrace character as the core foundation for their leadership credibility and influence.

CROSS-DISCIPLINARY SUBJECTS

The tentative list of Cross-Disciplinary Subjects (CDS) is shown here. The final list of subjects to be offered in each semester is subject to change and not all subjects will be offered in every semester.

Contents

School of Applied Science

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1X01	Human Health & Diseases	1	3
ABT1X02	Life Sciences & You	1	3
ACE1X02	Water Technology	1	3
AFS1X01	Food Hygiene	1	3
ANT1X01	Basics of Nutrition	1	3
APH1X01	Introduction to OTC Medication	1	3

Subject Synopses

ABM1X01 Human Health & Diseases

This subject is designed to provide the fundamental and up-to-date information on human health and diseases. It covers the common non-infectious and infectious diseases as well as their diagnoses, prevention and treatment.

ABT1X02 Life Sciences & You

This subject is designed to create an awareness of the life sciences, its applications and impact on the lives of people. It will cover the current developments in the different areas of the life sciences as well as the related legal, social, moral and ethical issues and implications.

ACE1X02 Water Technology

This subject examines water as an essential for life. It highlights the sources of water in nature, the technology in processing water including wastewater, quality of water in terms of chemical, physical and microbiological standards and uses of water in everyday life. The subject will be taught via lectures, tutorials and practicals.

AFS1X01 Food Hygiene

This subject introduces the importance of food safety and the practices that prevent food borne illnesses. It covers the sources of potential food borne hazards, various aspects of safe food handling during purchasing, food preparation and storage as well as personal hygiene.

ANT1X01 Basics of Nutrition

This subject examines the role and importance of various nutrients in relation to the well-being of the human body. It covers food sources of these nutrients, the Healthy Diet Pyramid and food labelling.

APH1X01 Introduction to Over-The-Counter (OTC) Medication

This subject provides you with an overview of over-the-counter (OTC) medication and equips you with an understanding of responsible and proper self-medication for common minor ailments.

School of Business

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1005	Basic Financial Accounting	1	3
BAF1006	Basic Finance	1	3
BBS1003	Managing Human Resources	1	3
BBS1004	Fundamentals of Management	1	3
BBS1005	Fundamentals of Entrepreneurship	1	3
BBT1004	Basics of E-Business	1	3
BCM1010	Introduction to Mass Communication	1	3
BCM1011	Business Chinese & PRC Culture	1	3
BCS1006	Academic Research & Writing Skills	1	3
BEC1003	Introductory Economics	1	3
BHT1015	Event Planning	1	3
BHT1016	Fundamentals of Hospitality & Tourism Business	1	3
BLM1005	Introduction to the Law of Singapore	1	3
BLO 1003	Introduction to Logistics & Supply Chain Management	1	3
BLO 1005	Basic Calculus for Business	1	3
BMK1003	Introduction to Marketing	1	3

Subject Synopses

BAF1005 Basic Financial Accounting

This subject provides you with an understanding of the general framework of the accounting discipline. You will learn basic knowledge of accounting concepts including preparing, understanding and analysing accounting records and simple financial reports for small and medium-sized enterprises. You will have opportunities to apply the knowledge to real world situations.

BAF1006 Basic Finance

This subject equips you with a basic understanding of financial management, various sources and application of funds of a typical business and some basic techniques to assist in long-term financial decision-making. You will have opportunities through various learning methods such as group discussions and research assignments to apply the knowledge to real world situations.

BBS1003 Managing Human Resources

This subject equips you with an understanding of the human resource management functions ranging from employee induction, people development, performance appraisal, rewards and benefits, change management, team management to discipline and grievance handling. You will also have an appreciation of the current trends in the field of human resource management.

BBS1004 Fundamentals of Management

This subject equips you with the basic understanding of key management functions of planning, organising, leading and controlling. You will also gain an understanding of the impact of the key environmental factors on business, the importance of corporate social responsibility, business ethics and international management.

BBS1005 Fundamentals of Entrepreneurship

This subject equips you with the basic understanding of entrepreneurship and an appreciation of issues relating to the setting up of new businesses. You will be able to develop basic, sound business strategies to create viable business plans through the understanding of issues relating to market analysis, customers, marketing mix, staffing and basic financial projections.

BBT1004 Basics of E-Business

This subject provides a basic understanding of the issues in e-business relating to the planning, organising and development of e-business websites. Practical design, development and implementation considerations in e-business websites will be illustrated through hands-on activities. Besides electronic marketing imperatives, security, e-payment systems, legal and ethical issues and future trends will also be discussed.

BCM1010 Introduction to Mass Communication
This subject provides you with an understanding of the media scene. You will learn about mass communication concepts, history, and the advancement of the media industry. The subject also looks at ethical issues, mass media law, and the implications of media on society.

BCM1011 Business Chinese & PRC Culture
Conducted in Mandarin, this subject offers a glimpse of China's history and geography, its socio-political system, economic reform achievements and problems, and development trends. It highlights opportunities and challenges for international businesses in China's economic transformation. It also discusses the effect of traditional values on business practices and etiquette in China today. You will also learn business conversation and correspondence in Chinese.

BCS1006 Academic Research & Writing Skills
This subject exposes you to the rigours of academic writing. It focuses on the writing process, structure of essays, idea development, and evaluation and use of resources. You will also learn how to write literature reviews and put together an academic essay.

BEC1003 Introductory Economics
This subject equips you with basic microeconomic concepts and the necessary analytical skills for understanding the business environment. You will apply concepts such as the demand and supply model, elasticity, pricing strategies and growth strategies to the day-to-day business decision-making of individuals and firms. You will also learn problem-solving and process skills that will allow you to understand how economic variables affect business decision-making.

BHT1015 Event Planning
This subject provides a broad understanding of the event planning, organising and staging process. You will be given opportunities to appreciate the diverse nature of the event industry through fieldwork and research on related areas. The subject will also develop your process and problem-solving skills, as well as your ability to interact and communicate effectively with others.

BHT1016 Fundamentals of Hospitality & Tourism Business
This subject provides a broad understanding of the hospitality and tourism business by examining the origin of travel and how it has evolved into the biggest industry in the world. The dynamic tourism growth is understood within the framework of demand for and supply of travel services, tourism distribution and trends. The importance of sustainable tourism is underscored by a discussion on tourism impact and the concept of carrying capacity. You will work in groups or individually and have opportunities to appreciate the productive nature of the business and develop an understanding of how tourism can bring about both intended and unintended consequences on people and the environment.

BLM1005 Introduction to Law of Singapore
This subject provides a basic knowledge of the legal system and laws of Singapore. You will learn about the sources of Singapore law and how it is made. It also aims to equip you with a general understanding of the fundamental principles of criminal law, family law, the law of tort, the law of contract and civil and criminal procedures.

BLO1003 Introduction to Logistics & Supply Chain Management
This subject gives a basic understanding of business logistics and supply chain management. You will have opportunities to apply some of the basic techniques acquired to manage real-life problems faced in the industry.

BLO1005 Basic Calculus for Business
This subject serves as a foundation subject, designed for students who do not have a background in O Level Additional Mathematics. You will learn the basic concepts of algebra and functions, differentiation and integration. Techniques of problem solving in business and economics applications will also be covered.

BMK1003 Introduction to Marketing
This subject provides an understanding of the basic concepts of marketing. It focuses on the tools used by marketers to develop the appropriate marketing mix involving product, promotion, price and place; and includes key topics such as environmental forces and market segmentation. You will learn how to market a company's products and services successfully.

School of Design

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1900	20th Century Fashion	1	3
DAD1913	Basic Digital Textile Creation	1	3
DED1912	Creating Tropical Gardens	1	3
DIA1902	Human Environment Planning	1	3
DIM1906	Ideation	1	3
DMV1911	Appreciating Local Cinema	1	3
DPD1901	Freehand Drawing	1	3
DPS1903	Design in Culture	1	3
DVC1905	Colour & Composition	1	3

Subject Synopses

DAD1900 20th Century Fashion
This subject introduces you to the evolution of fashion in the 20th century. You will explore different fashion looks and styles, trends and silhouettes. Influences from international fashion designers in the fashion industry will also be introduced.

DAD1913 Basic Digital Textile Creation
The subject introduces you to the basic knowledge and skills required for designing textile print traditionally and digitally. Since software application is integral to the creative process, you will use Adobe Photoshop and Illustrator as design tools. You will learn to design motifs and patterns, apply colours and reproduce them to create all over repeats, border repeats or mono prints. You will create a collection developed around a theme or concept for apparel textile or home furnishings.

DED1912 Creating Tropical Gardens
This subject provides you with an understanding of what encompasses a tropical garden or a green space. You will learn about the different types of green spaces, both outdoor and indoor, the fundamentals of a garden and its basic components. You will also be taught the steps on how to create a garden, the characteristics of essential tropical plants generally grown and what it takes to grow and maintain one's own green space.

DIA1902 Human Environment Planning
This subject covers the fundamentals in planning environments to fit human characteristics and capabilities. Students will be taught the vocabulary of spatial design and how interior environments influence human behaviour.

DIM1906 Ideation
This subject introduces you to 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. The subject also introduces visual literacy through which you develop your personal visual language to communicate a variety of concepts. You will also develop and demonstrate your aesthetic awareness and design sensibility.

DMV1911 Appreciating Local Cinema
This subject introduces you to the films that have been produced by local filmmakers and a brief history of the film industry in Singapore. You will be taught how to identify the major genres, various styles and techniques of the different filmmakers and analyse the elements which make their films popular and accepted by local audiences. At the end of the subject, you will be able to critically watch a local film and better appreciate the messages that the film conveys.

DPD1901 Freehand Drawing
This subject emphasises drawing through observation, using basic drawing media. This provides experiences directed at exploring and viewing the physical environment through drawing and the development of the drawn image. The drawing sessions will generally be based on freehand drawing, placing special demands on seeing/ perception (eyeballing), scale, composition and perspective. Subject matter covered could include figures, landscapes, seascapes, interiors, architecture and still life.

DPS1903 Design in Culture
This subject introduces the factors behind cultural formation, and explores human expression in its various forms. It explores human behaviour and production, and some key issues in social development such as geography, history, politics, psychology and gender. Through an examination of objects and artefacts, from early tribal rites and rituals to contemporary fashion and trends, you will develop an awareness and appreciation of culture in shaping societies' needs, wants and desires.

DVC1905 Colour & Composition
This subject introduces basics in colour and composition theories and their application in art and design. It provides an appreciation of such basic theories by understanding the role of primary colours as a catalyst to how colour schemes are derived, and how they are applied in two and three-dimensional compositions.

School of Engineering

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EPL1X01	Problem Solving Techniques	1	3
EBZ2X01	Management of Enterprise	2	3
EPM2X01	Introduction to Project Management	2	3

Subject Synopses

EBZ2X01 Management of Enterprise
This subject is designed to equip you with basic concepts and techniques which are essential for starting up and running a small enterprise. It describes the entrepreneurial traits and the various methods and legal forms needed for establishing your company. The business tools of marketing, finance and human resource management are explained. You will have the opportunity to apply your knowledge in the creation of a business plan based on an original business idea.

EPL1X01 Problem Solving Techniques
Innovation involves a change that ultimately results in a useful product or process. It requires creative problem-solving and effective communication skills. In this subject, you will be taught the process skills for teamwork development, good communication, brainstorming and creative thinking. Fundamental concepts from mathematics and the sciences will also be applied creatively to tackle practical real-life issues.

EPM2X01 Introduction to Project Management
This subject covers the important aspects of planning the various activities of a project, allocating necessary resources, calculating the project costs, and implementing and controlling the progress of the project until completion. Some software will also be used in the subject to enhance and complement your learning.

School of Humanities & Social Sciences

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GEN1004	Music: Expressions & Applications	1	3
GEN1007	Understanding Art	1	3
GEN1008	Understanding Theatre	1	3
GEN1011	Cross-Cultural Psychology	1	3
GEN1014	Introduction to Counselling Psychology	1	3
GEN1017	Critical Reasoning Skills	1	3
GEN1018	Cinema: Reflections & Interpretations	1	3
GEN1019	Places & Spaces – A Singapore Context	1	3
GEN1801	Building Age-Friendly Communities	1	3
GEN1901/GPP1006	Entrepreneurship & Business Startup	1	3
GEN1902	Innovation Principles & Practice	1	3
GEN1904	Basics of e-Entrepreneurship	1	3
GEN1905	Social Entrepreneurship	1	3
GLA1002	Creative Writing	1	3
GLA1005	Fundamentals of Public Speaking	1	3
GLA1007	Introduction to English Phonetics	1	3
GSS1003	Introduction to Psychology	1	3
GSS1004	Introduction to Sociology	1	3

Subject Synopses

GEN1004 Music: Expressions & Applications
You don't have to be a musician or singer to create music… and you certainly don't have to be formally trained in music to do this subject. All you'll need is a passion for music, a curiosity for the basic elements of music and its development and applications through the ages and in today's context. Composing, sequencing and performing (virtual instruments) – you'll be amazed at what you can do.

GEN1007 Understanding Art
This subject provides the knowledge and skills to understand visual art and its relevance to society and culture. It engages in issues such as the nature of art, how art is analysed and evaluated, processes of art-making, various forms and mediums and the place of art in our lives. In addition, you will be introduced to art experiences as you create your own works and learn to express yourself through art.

GEN1008 Understanding Theatre
This subject provides the basic knowledge and skills to understand the dramatic arts and its relevance to society and culture. It covers topics such as the origins and purpose of theatre, the various forms of Western and Eastern theatre and the skills required of a performer. In addition, you will be introduced to theatre experiences as you create your own performance works individually and in groups. This subject uses a practical hands-on workshop approach as the main teaching style.

GEN1011 Cross-Cultural Psychology

This subject gives you a better understanding of how different cultural settings influence the way people think, behave, value and perceive things. It will raise awareness and create sensitivity on how culture shapes and influences a variety of areas ranging from individual development to socialisation and work.

GEN1014 Introduction to Counselling Psychology

This subject provides you with a general introduction to the field of Counselling Psychology. You will have opportunities to explore the fundamentals of counselling and counselling process as well as discuss the primary theoretical perspectives and contemporary issues that influence the counselling profession. You will be equipped with basic helping skills that you can apply by helping people around you.

GEN1017 Critical Reasoning Skills

Ever had a disagreement but found it difficult to explain why you didn't agree with someone? Can you tell the difference between a fact and an opinion? Between assumptions and knowledge? This subject gives you perspectives on thinking and how our thoughts form concepts that help us better understand the world. From exploring the thinking and reasons behind values, superstitions and personal beliefs to understanding what makes an argument work, you will gain a better appreciation of the reasoning behind arguments, and learn to persuade others using valid and sound reasoning.

GEN1018 Cinema: Reflections & Interpretations

Don't rely on the opinions of movie critics; develop your own. Take a more in-depth look at cinema and develop your critical thinking skills by applying them to films. The subject will take a look at the brief history of cinema, as well as some of the more significant genres and styles in film-making. The range of films discussed and analysed will allow you to broaden your appreciation of history, society and culture beyond the usual Hollywood blockbusters, and develop your reflection, self-expression and writing skills.

GEN1019 Places & Spaces – A Singapore Context

Have you ever wondered why you feel "connected" to certain places and less so to others? What are the impacts of the significant places in your life? This subject will explore the different ties you make with places and spaces and help you develop ways to view places and spaces in a novel way. Through lectures, tutorials and field trips, you will discover different facets of Singapore and have a better appreciation of the spaces you occupy.

GEN1801 Building Age-Friendly Communities

This subject introduces you to the topic of ageing and the use of appropriate tools for uncovering challenges or problems that are related to ageing and well-being in the community. This subject will examine the concept of ageing in place and the significance of accessibility in the built environment. This involves investigating age-related social and lifestyle issues within the community using empathic simulation tools and user centric approaches, as well as applying the age-related knowledge to produce concepts for an age-friendly environment/product/service.

GEN1901/GPP1006 Entrepreneurship & Business Startup

This subject is designed for students from all disciplines who have the passion and desire to develop their own businesses. It provides a comprehensive knowledge of management, marketing, finance and e-business operations. This includes an understanding of how to design and develop a new business plan, develop marketing strategies, obtain capital resources for a new business enterprise and manage the cash flow of a startup business.

GEN1902 Innovation Principles & Practice

The subject will cover idea generation techniques and its applications to propose and improve solutions for products or services currently lacking in the market. It will also provide a general overview of intellectual property laws and business ethics, and their impact towards innovation. You will experience the positive results of an innovative culture in class by becoming engaged in a process-driven environment during the ideation stage. You will be guided to construct a simple model to demonstrate the feasibility of your ideas in a potential startup enterprise.

GEN1904 Basics of E-Entrepreneurship

This subject introduces you to the basic concepts of e-entrepreneurship and examines the wealth of Internet applications available to create an e-business. It helps you identify opportunities to set up, manage and develop the business using the most efficient and cost-effective online means. The concepts and processes in using e-Testing are also implemented in this subject.

GEN1905 Social Entrepreneurship

The subject involves understanding of various enterprise start-ups in a social environment in contrast with an all-for-profit business venture. It comprises knowledge of social enterprise works and encourages enterprising students to create a social impact for societies. You will also study opportunities and challenges in working and communicating with beneficiaries of social communities and propose business ideas to achieve triple bottom-line objectives – Profit, People, and Planet.

GLA1002 Creative Writing

This subject introduces techniques in the creative writing process that will enable you to stretch beyond your basic writing ability. It also covers various types of literary works as well as their characteristics and engages you in the writing process.

GLA1005 Fundamentals of Public Speaking

This subject aims to help you become an effective, confident speaker and evaluator. It equips you with the techniques to craft, deliver and evaluate speeches in a variety of contexts, including both impromptu and prepared situations.

GLA1007 Introduction to English Phonetics

This subject presents an introduction to the sounds of spoken English. It also covers other pronunciation features such as stress and intonation, and introduces you to phonemic transcription. The main varieties of spoken English will also be examined in relation to the pronunciation features studied.

GSS1003 Introduction to Psychology

This subject introduces the five major areas of psychology: cognitive (learning and memory), developmental (intelligence and personality), physiological (motivations, emotions and stress), social (conformity, authority, friends and groups) and abnormal (disorders and treatment). By the end of this subject, you should be able to understand yourself and others better.

GSS1004 Introduction to Sociology

This subject introduces basic sociological perspectives in human behaviour. You will have the opportunity to examine current social issues, and develop an analytical mind. Topics include deviance and crime, social class, culture, social interaction, ethnic relations, globalisation, family and gender issues.

School of Informatics & IT

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CGE1X01	Introduction to Digital Game Development	1	3
CIC1X03	Introduction to Human Computer Interaction	1	3
CID1X02	Introduction to Digital Tools & Techniques	1	3
CIM1X01	Effective Internet Research	1	3
CIT1X06	Discovering the Virtual Globe	1	3
CMA1X06	The Powerful Art of Storytelling	1	3
CMA1X07	Styles & Issues in Writing for the New Media	1	3
CMA1X08	Literacies for the Digital Age	1	3

Subject Synopses

CGE1X01 Introduction to Digital Game Development

This subject provides you with the basic understanding of how to create a computer game. You will learn how to design and develop a 2D game using an integrated development environment (IDE) software. You will also be introduced to gaming history, the gaming industry and major game publishers. Game development concepts such as game design, game architecture and computer animation will also be covered.

CIC1X03 Introduction to Human Computer Interaction

This subject covers the concepts, theories, application of human-computer interaction, as well as various usability evaluation paradigms. You will be introduced to the fundamentals of cognitive psychology, principles of human-computer interaction and user-centred design methodology.

CID1X02 Introduction to Digital Tools & Techniques

This subject enables you to create effective visuals using appropriate tools and techniques. It covers the fundamentals concepts and design systems for digital media production.

CIM1X01 Effective Internet Research

With the phenomenal information explosion brought about by Internet technologies, the ability to effectively search and critically evaluate information resources on the Internet becomes an important skill. This subject aims to provide you with practical experience of using the Internet to search for quality information and use evaluation tools for research purposes. Topics covered include categories of Internet resources, Internet search facilities, evaluation of Internet resources, referencing, Internet ethics and intellectual property issues.

CIT1X06 Discovering the Virtual Globe

This subject will cover how to customise a virtual globe using photographs and 3D models. The issues and trends in using virtual globes will also be explored.

CMA1X06 The Powerful Art of Storytelling

This subject aims to create awareness of how powerful stories are and how to tell an engaging story. You will learn about the role of stories in society and explore the value of stories in communication. You will learn how to tell a story, displaying sensitivity to the purpose and audience of your stories.

CMA1X07 Styles & Issues in Writing for the New Media

This subject equips you with the knowledge and skills to write web content effectively for new media such as personal and corporate websites, weblogs and such. You will learn about common web user behaviours and how they affect the way language and texts are used and structured in order to create impact on the web. You will also learn to display sensitivity to the purpose and audience of your texts. In addition, you will explore various social issues and responsibilities related to communicating through the new media.

CMA1X08 Literacies for the Digital Age

You will learn about the characteristics of the digital age and its impact on everyday life, as well as about the skillsets associated with various digital literacies. In addition, you will communicate a message using digital tools while applying social and ethical considerations. By using the concept of M.A.P.S. (Message, Audience, Purpose and Strategies), you will learn to communicate with greater social and ethical awareness online.

Centre for Character & Leadership Education

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
LLC1005	Leadership & Character	1	3

Subject Synopses

LLC1005 Leadership & Character

Ever wondered what it takes to be a leader? Always wanted to be an influencer of people but didn't know how? This subject introduces you to the various theories and concepts of leadership. You will examine the lives of well-known leaders and explore the importance of character in effective leadership. Learn how effective leadership concepts can be applied in various situations and contexts and be the leader you were meant to be.

Centre for Transcultural Studies

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
TCS1001	Introduction to Language & Culture (French)	1	3
TCS1002	Introduction to Language & Culture (Japanese)	1	3
TCS1003	Understanding Expressions of Culture	1	3
TCS1005	China Studies – Language & Culture	1	3
TCS1006	World Issues	1	3
TCS1007	Perspectives on China – An Introduction	1	3
TCS1008	Introduction to Language & Culture (Italian)	1	3
TCS1009/ TCJ1009/ TCV1009/ TCP1009	Transnational Studies	1	3
TCS1011	Contemporary Issues - Global Perspectives	1	3
TCS1012/ TCV1012	Sustainable Community Development	1	3
TCS1013	Cross Cultural Communication	1	3
TCS1014	Introduction to Language & Culture (Mandarin)	1	3
TCS1015	Environmental Art	1	3
TCS1016	Playback Theatre	1	3
TCS1017	Introduction to Language & Culture (Spanish)	1	3
TCS1101	Contemporary French	1	3
TCS1102	Essential Japanese	1	3
TCS1105	China Studies – Modern China	1	3
TCS1305	China Studies – Special Project	1	3
TCV1004	Global Citizenship	1	3
TCV1205	China Studies – Attachment in China	1	3

Subject Synopses

TCS1001 Introduction to Language & Culture (French)

You will learn how to introduce yourself, talk about your family, work and daily activities as well as communicate effectively in various French-speaking situations (in a café, at the hotel reception, in a shop, etc). The subject also explores the key aspects of French culture. Students with formal study of French are not allowed to take this subject.

TCS1002 Introduction to Language & Culture (Japanese)

This subject covers basic Japanese oral communication skills in situations where you exchange greetings, do shopping and describe daily activities. It also highlights key aspects of the Japanese culture, values and mind-set. Students with formal study of Japanese are not allowed to take this subject.

TCS1003 Understanding Expressions of Culture

This subject introduces you to the concept and elements of culture through the cultural windows framework. It covers the visible aspects of culture, where the values and beliefs of different cultures are manifested through themes such as food, costume, festivals, rituals, and the arts.

TCS1005 China Studies – Language & Culture

This subject provides you with a foundation in China history, language and culture, and English-Chinese/ Chinese-English translations. This subject is taught primarily using the Chinese language.

TCS1006 World Issues

Want to know more about the "who, what, where, when, why and how" of significant world issues and how these issues can affect Singapore and you? This subject will keep you attuned to the causes, effects, solutions and challenges of what is happening around you in the world.

TCS1007 Perspectives on China – An Introduction

This subject introduces you to the different facets of Chinese society to help you gain a better understanding of China and its people. You will learn more about China's major classical legacies, its geography, its political system, its growing economy, as well as its rich and diverse culture.

TCS1008 Introduction to Language & Culture (Italian)

This subject covers the basic concepts and linguistic forms of the Italian language. You will learn how to introduce yourself, talk about your family, work and daily activities as well as communicate effectively in various Italian-speaking situations. In addition, you will also explore the key aspects of the culture of the Italian community. Students with formal study of Italian are not allowed to take this subject.

TCS1009/TCJ1009/TCV1009/ TCP1009 Transnational Studies

This subject enables you to acquire cross-cultural skills and knowledge targeted at preparing you for life in the globalised workplace. You are expected to complete a two-week residential stay at the Glocal Connect Village (GCV), our on-campus apartments. The GCV experience will provide opportunities for international and local students to interact and be engaged in a range of intercultural learning experiences together. The subject is also offered during term vacation when lessons are conducted intensively. A highly subsidised fee of $100 is chargeable per student for the Residential Stay and an Intercultural Awareness Profile.

TCS1011 Contemporary Issues – Global Perspectives

This subject provides an opportunity for you to study how current and contemporary issues have implications both at global and national levels. Topics covered include culture and society, leadership and political systems, defence and national stability. These topics will present avenues for the development of individual voice and confidence. Largely experiential in nature, it will be driven by multiple approaches such as study trips, field visits, movies, discussions, and presentations.

TCS1012 / TCV1012 Sustainable Community Development

This subject introduces you to the concepts of development projects that are able to be sustained by benefiting community for a longer term period without damaging the natural, human and social environments. The first part of the subject highlights the basic elements of context analysis and provides the practical skills required for development project. In the second part of the subject, through an on-site experience locally or overseas, you will carry out a community development action plan that you have developed.

TCS1013 Cross Cultural Communication

Have you wondered by communicating with people of different cultures can be challenging even though we may be speaking the 'same' language? How does culture influence communication styles? Do all cultures use the same verbal and non-verbal communication styles and symbols? This subject introduces you to these and more through an exploratory journey into the exciting world of cross-cultural communication. You will engage in 'live' cross-cultural communication situations, role plays and movies. You will interact with people of different cultures, get to immerse in diverse cultural enclaves as well as explore how cross-cultural communication works in diverse work, social and other contexts.

TCS1014 Introduction to Language & Culture (Mandarin)

This subject covers basic oral and written communication skills in Mandarin and key aspects of the Chinese culture. It covers topics on general knowledge about Chinese culture, Mandarin pronunciation, writing in Chinese, social interaction, and functioning in a Mandarin speaking environment. Students with formal study of Mandarin are not allowed to take this subject.

TCS1015 Environmental Art

How does visual art engage the physical world and our environment? That is something you will learn from this subject. Highly hands-on and interactive, you will be able to learn more about the relationship between art and our environment through art understanding, art making, and discussions in environmental issues. Explore, create art, and cap off with a mini exhibition!

TCS1016 Playback Theatre
Interested in using theatre to facilitate cross-cultural community dialogues? Playback Theatre can meaningfully connect, impact, and transform communities through the artistic expressions of their feelings, thoughts, and stories. Find out how to do that in this subject through techniques such as fluid sculpture, pair-work, chorus, scene work, conducting, etc. You will be able to create a Playback Theatre performance at the end of the semester.

TCS1017 Introduction to Language & Culture (Spanish)
This subject covers the basic concepts and linguistic forms of the Spanish language. Students will learn how to introduce themselves, talk about their family, work and daily activities as well as communicate effectively in various Spanish-speaking situations. The subject also explores the key aspects of the culture of the Spanish speaking communities around the world. Students with formal study of Spanish are not allowed to take this subject.

TCS1101 Contemporary French
This subject builds on Introduction to Language and Culture (French). It is based on everyday life situations which tourists and professionals typically encounter with French-speakers, whether in France or in a French-speaking environment. You will learn the vocabulary, language patterns and culture to equip you to better communicate in spoken and written French.

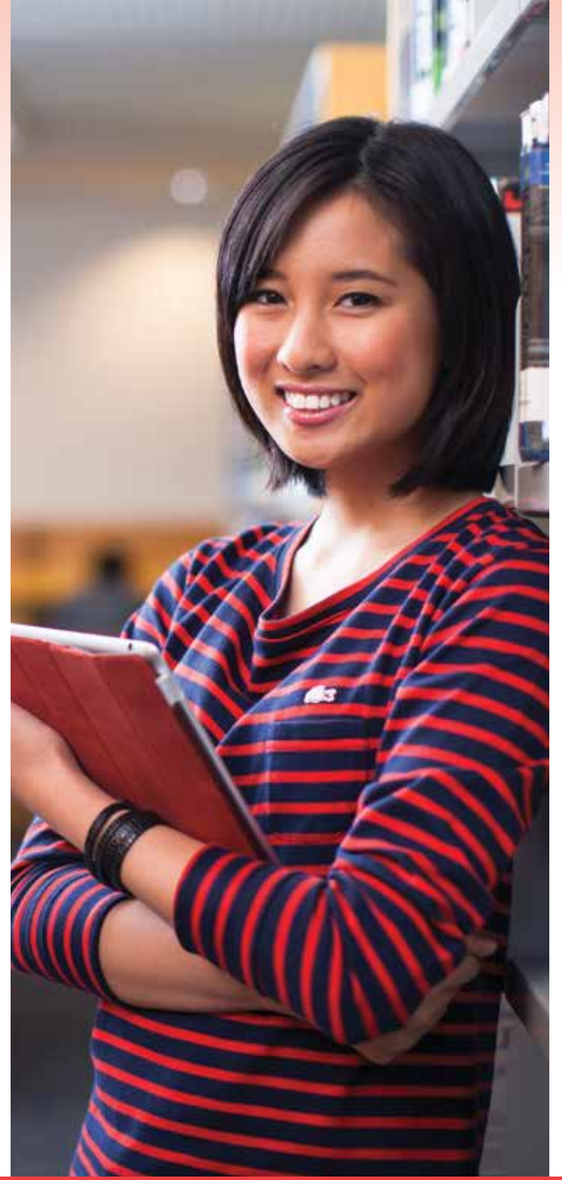
TCS1102 Essential Japanese
This subject builds on Introduction to Language and Culture (Japanese) and focuses on the subtleties of the Japanese language. Grammar will be reinforced and you will build up your vocabulary in the Japanese language. You will also learn to read and write Japanese characters.

TCS1105 China Studies – Modern China
The subject aims to provide you with the broad perspectives on China as a world economic body. It prepares you for venturing into the China market by giving you an overview of China's political, economy, and social structure. This subject is taught primarily using the Chinese Language.

TCS1305 China Studies – Special Project
In this subject, you will learn the various aspects of Chinese culture in Singapore, and be familiar with the Chinese immigrants and business landscape in Singapore. At the end of the semester, you will plan and execute a Chinese cultural event to be held at the Glocal Connect Village.

TCV1004 Global Citizenship
This subject highlights the interconnectedness of the world today through discussions on various global issues, bringing about an awareness of what it means to be a global citizen. An overseas trip will be included for you to better understand the issues raised during classroom sessions.

TCV1205 China Studies – Attachment in China
This is an attachment programme in China where you are given the opportunity to be placed in commercial or governmental bodies, or educational institutions to apply what you have learnt as well as learn how to function effectively in the China environment.



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) ^	Joint Polytechnic Special Admissions Exercise (JPSAE) – Special Talents (Academic & CCA Special Talents) %^	Direct Polytechnic Admissions (DPA) Exercise
Who may apply	**Singaporeans (SC) or Singapore Permanent Residents (SPR)** - Singapore-Cambridge GCE O Level examination results (2014 or earlier) - Current JC students or Singapore-Cambridge A Level students seeking admission based on Singapore-Cambridge GCE O Level examination results. **Foreign Students** - From a government, government-aided or independent school (excluding private schools) with 2014 Singapore-Cambridge GCE O Level examination results.	Singaporeans (SC) or Singapore Permanent Residents (SPR), foreign students (from a government, government-aided or independent school) with 2014 Singapore-Cambridge GCE O Level examination results. Candidates should also demonstrate one of the following: - Strong passion or aptitude through work attachments - Sustained involvement in course-related projects - Outstanding performance in competitions - Outstanding talents/achievements in leadership, community service, entrepreneurship, sports and arts.	**Singaporeans (SC) or Singapore Permanent Residents (SPR)** - Registered to sit for the Singapore-Cambridge GCE O Level examinations in the year of the DPA exercise. **Foreign Students must have** - Enrolled in government, government-aided or independent schools - Registered to sit for the Singapore-Cambridge GCE O Level examinations in the year of the DPA exercise.
When to apply	Five calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results. Refer to www.moe.gov.sg and press release in the media.	Five calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results. Refer to www.polytechnic.edu.sg upon release of the Singapore-Cambridge GCE O Level examination results for latest information.	Around July Refer to www.moe.gov.sg for press release and www.polytechnic.edu.sg for latest information.
How to apply	Apply online at www.moe.gov.sg/education/admissions/jae	Apply online at www.polytechnic.edu.sg	Apply online at www.polytechnic.edu.sg

Qualification	Singapore-Cambridge GCE O Level		
Entry requirements	Refer to section on "Eligibility & Requirements", respective school sections on the Minimum Entry Requirements and JAE Information Booklet which is available for download at www.moe.gov.sg/education/admissions/jae.		
Expected release of posting results	About two weeks after the JAE application period. Refer to the Joint Admissions Exercise Information Booklet or www.moe.gov.sg/education/admissions/jae for the latest information.	About two weeks after the JPSAE application period. Refer to www.polytechnic.edu.sg for the latest information. Applicants may check their posting results at www.polytechnic.edu.sg	In August Refer to www.polytechnic.edu.sg for the latest information. Applicants may check their posting results at www.polytechnic.edu.sg
Application enquiries	Ministry of Education Customer Service Centre: 6872 2220 Email: contact@moe.edu.sg	Email: help@jpsae.polytechnic.edu.sg	Email: help@dpa.polytechnic.edu.sg
Others			Successful applicants accepted into DPA are expected to participate in TP's 8-week Polytechnic Preparatory Programme (PPP). Information on the PPP can be found at web.tp.edu.sg/dpa/ppp.htm

% Applicants applying through JPSAE are also advised to submit their application through JAE.

^ This section should be read in conjunction with the JAE Information Booklet and joint-polytechnic website at www.polytechnic.edu.sg.

Qualification	Singapore-Cambridge GCE O Level holders	Integrated Programme (IP)/ SOTA leading to International Baccalaureate (IB) or Singapore-Cambridge GCE A Level	Singapore-Cambridge GCE A Level holders
Type of admissions exercise	Direct Admissions Exercise (DAE - Local Qualification)		
Who may apply	**Singapore-Cambridge GCE O Level** holders who missed the English Language requirement but have obtained distinctions in both Maths and relevant subjects. Foreign students from private schools with Singapore-Cambridge GCE O Level examination results (2014 or earlier). Current or ex-polytechnic students seeking re-admission.	**Students on Integrated Programme (IP) leading to International Baccalaureate (IB) or Singapore-Cambridge GCE A Level** – completed the equivalent of Secondary 4 or higher. **Students from SOTA** – completed Year 4 or graduated with Singapore-Cambridge GCE A Level/IB.	**Singapore-Cambridge GCE A Level holders** who are seeking admissions to the following full-time diploma courses of 2.5 year duration: • Biotechnology • Business • Chemical Engineering • Computer Engineering • Electronics • Mechatronics • Media & Communication Technology • Microelectronics **Singapore-Cambridge GCE A Level holders** who are seeking admission to three-year full-time diploma courses but missed the JAE.
When to apply	**April Intake:** Five calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results.		**April Intake:** Five calendar days starting from the release of the Singapore-Cambridge GCE A Level examination results.
How to apply	Apply online at www.tp.edu.sg/admissions/admissionexercises	Application form can be downloaded at www.tp.edu.sg/admissions/admissionexercises	Apply online at www.tp.edu.sg/admissions/admissionexercises
	Supporting documents are to be sent by post, fax (6783 3031) or scan and email to admissions@tp.edu.sg by the stipulated closing date, after the application has been submitted online. Applications without the supporting documents will be deemed incomplete and will not be processed.		

Qualification	Singapore-Cambridge GCE O Level holders	Integrated Programme (IP)/ SOTA leading to International Baccalaureate (IB) or Singapore-Cambridge GCE A Level	Singapore-Cambridge GCE A Level holders
Entry requirements	Refer to section on "Eligibility & Requirements", respective school sections on the Minimum Entry Requirements and JAE Information Booklet which is available for download at www.moe.gov.sg/education/admissions/jae.		
Expected release of posting results	**April Intake:** End March		**April Intake:** Mid April
	Applicants may check their application status online at www.tp.edu.sg/admissions/admissionexercises		
Application enquiries	Temasek Polytechnic Registrar's Office/Admissions: Tel: 6788 2000 Fax: 6783 3031 Email: admissions@tp.edu.sg		
Others			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.

Qualification	ITE Certificates		
Type of admissions exercise	Joint Polytechnic Admissions Exercise (JPAE)		Direct Admissions Exercise (DAE-Local Qualification)
Who may apply	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	End February Refer to www.polytechnic.edu.sg for the latest information.		End February Refer to www.tp.edu.sg/admissions/admissionexercises
How to apply	Apply online at www.polytechnic.edu.sg		Apply online at www.tp.edu.sg/admissions/admissionexercises
Entry requirements	Refer to www.polytechnic.edu.sg and the section on "Minimum Entry Requirements for ITE Certificate Holders – Higher National ITE Certificate (Higher NITEC)"	Refer to www.polytechnic.edu.sg 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"
Expected release of posting results	Early April Applicants may check their posting results at www.polytechnic.edu.sg		Early April Applicants may check their application status online at www.tp.edu.sg/admissions/admissionexercises
Application enquiries	Email: help@jpae.polytechnic.edu.sg		Temasek Polytechnic Registrar's Office/Admissions: Tel: 6788 2000 Fax: 6783 3031 Email: admissions@tp.edu.sg
Others	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. Eligible students seeking exemptions may consult the school advisors or Course Manager for application details during the orientation programme for new students.		

Qualification	Singapore-Cambridge GCE N Level
Type of admissions exercise	Polytechnic Foundation Programme Admissions Exercise (PFPAE)
Who may apply	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. Students who are interested in applying to PFP should first progress to Secondary 5 on 2 January 2015. Upon the release of the 2014 Singapore-Cambridge GCE O Level examination results in January 2015, eligible Secondary 4 Normal (Academic) students will be invited to apply for the polytechnic diploma courses of their choice under Polytechnic Foundation Programme.
When to apply	Five calendar days starting from the release of the Singapore-Cambridge GCE O Level examination results. Refer to www.polytechnic.edu.sg for latest information.
How to apply	Apply online at www.polytechnic.edu.sg
Entry requirements	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) and meet the minimum subject requirements at the Singapore-Cambridge GCE N Level examination will be eligible to apply to the PFP. 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. Refer to www.polytechnic.edu.sg for the latest information.
Expected release of posting results	End January Applicants may check their posting results at www.polytechnic.edu.sg
Application enquiries	Email: help@pfp.polytechnic.edu.sg
Others	Refer to www.tp.edu.sg/courses/full-time-courses/polytechnic-foundation-programme or www.polytechnic.edu.sg for latest information.

Qualification	Malaysia UEC	Malaysia SPM/STPM	IGCSE	All other Foreign Qualifications
Type of admissions exercise	Direct Admissions Exercise (DAE - Foreign Qualifications)			
Who may apply	Holders of UEC	Holders of SPM/STPM	Holders of IGCSE	Holders of all other foreign qualifications
When to apply	Mid December to early January*	Mid March to end March*	Between January to early February*	1 to 31 October
Course Commencement	April			
How to apply	Refer to www.tp.edu.sg/admissions/admissionexercises for application procedures			
	All required documents are to be submitted by post or in person **within the dates specified in the website.**			
	Application without the supporting documents will be deemed incomplete and will not be processed.			
Entry requirements	Refer to www.tp.edu.sg/admissions/admissionexercises for the respective country's entry requirements.			
Expected release of posting results	By batches before course commencement. Applicants may check their application status online at http://www.tp.edu.sg/admissions/admission-exercises-application-status			
Application enquiries	Temasek Polytechnic International Students Office Tel: 6780 5970 Fax: 6789 4409 Email: isohotline@tp.edu.sg			

*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 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 course. Applicants may combine their Singapore-Cambridge GCE O Level results of up to two sittings.

Aggregate types and the relevant subject lists are available in the JAE Information Booklet at www.moe.gov.sg/education/admissions/jae.

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, www.moe.gov.sg/education/admissions/jae. 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 Qualification Holders

Applicants with Singapore-Cambridge GCE A Level 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
- Electronics ①③④
- Mechatronics ①③④
- Media & Communication Technology ①③④
- Microelectronics ①③④

Note:
① Applicants with complete colour vision deficiency are not eligible to apply.
③ 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.
④ Applicants with severe vision impairment are not eligible to apply.

Details on the minimum entry requirements of the above courses can be found at the respective Schools' sections of the prospectus.

Singapore-Cambridge GCE A Level certificate holders may also apply for other three-year diploma courses using their Singapore-Cambridge GCE O Level examination results. 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 to apply to 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: • Science (Physics, Chemistry) • Science (Physics, Biology) • Science (Chemistry, Biology) • Food and Nutrition • Design and Technology	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: • Principles of Accounts • Literature in English • History • Combined Humanities • Geography • Art	3
Any two other subjects, excluding CCA	3

**Refer to www.tp.edu.sg/courses/full-time-courses/polytechnic-foundation-programme/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 the minimum GPA (inclusive of CCA bonus points) and the relevant ITE Higher National ITE Certificate (Higher NITEC)/ ITC/ CBS qualification applicable to the full-time diploma courses as shown in the table below. 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	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Early Childhood Studies	T54	3.0	-	⑤
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
BS82	Banking Services	Accounting & Finance	T02	3.0	-	
		Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
BS83	Hospitality Operations	Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Culinary & Catering Management	T18	3.0	-	③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	

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	Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Leisure & Events Management	T61	3.0	-	
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
BS84	Business Studies (Event Management)	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Culinary & Catering Management	T18	3.0	-	③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑦
		Leisure & Events Management	T61	3.0	-	
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
BS85	Business Studies (Accounting)/ Accounting	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Culinary & Catering Management	T18	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	Business Studies (Accounting)/ Accounting	Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑦
		Leisure & Events Management	T61	3.0	-	
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
BS86	Business Studies (Administration)/ (Secretarial)	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Culinary & Catering Management	T18	3.0	-	③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑦
		Leisure & Events Management	T61	3.0	-	
		Mobile & Network Services	T42	2.5	-	①
		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	Business Studies (Logistics)/ Integrated Logistics Management/ Logistics for International Trade	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑦
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
BS88	Business Studies (E-Commerce)/ Business-Information Technology	Accounting & Finance	T02	3.0	-	
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
BS89	Business Studies (Sports Management)/ Sport Management	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①

ITE Code	ITE Qualification (Higher NITEC/ ITC/ CBS)	Courses	MOE Code	Min GPA^ for Entry to		Refer to footnote
				Year 1	Year 2	
BS89	Business Studies (Sports Management)/ Sport Management	Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
BS90	Business Studies (Service Management)/ Service Management	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Culinary & Catering Management	T18	3.0	-	③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑦
		Leisure & Events Management	T61	3.0	-	
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
BS92	Visual Merchandising	Apparel Design & Merchandising	T20	3.0	-	②④
		Communication Design	T59	3.0	-	②④
		Retail & Hospitality Design	T47	3.0	-	②④
		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

ITE Code	ITE Qualification (Higher NITEC/ ITC/ CBS)	Courses	MOE Code	Min GPA^ for Entry to		Refer to footnote
				Year 1	Year 2	
BS95	Passenger Services	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
BS98	Event Management	Accounting & Finance	T02	3.0	-	
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥
		Culinary & Catering Management	T18	3.0	-	③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	
		Hospitality & Tourism Management	T08	3.0	-	
		Information Technology	T30	2.5	-	
		Law & Management	T09	3.0	-	⑦
		Leisure & Events Management	T61	3.0	-	
		Mobile & Network Services	T42	2.5	-	①
		Retail Management	T39	3.0	-	③④
IT21	Electro-Mechanical Engineering	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Computer Engineering	T13	2.5	-	①③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①

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	Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mobile & Network Services	T42	2.5	-	①
		Product & Industrial Design	T35	3.0	-	②③④
IT22	Mechatronics Engineering	3D Interactive Media Technology	T49	2.5	-	②④
		Aerospace Electronics	T50	2.5	-	②③④
		Aerospace Engineering	T51	2.5	-	②③④
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Business Process & Systems Engineering	T43	2.5	-	④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Green Building & Sustainability	T29	2.5	-	④
		Infocomm & Network Engineering	T37	2.5	-	①③④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mechatronics	T06	-	3.5	①③④⑨⑩
		Mobile & Network Services	T42	2.5	-	①
		Product & Industrial Design	T35	3.0	-	②③④
IT31	Electrical Engineering	Aerospace Electronics	T50	2.5	-	②③④
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Biomedical Engineering	T38	2.5	-	②③④
		Business Intelligence & Analytics	T57	2.5	-	①
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	-	①③④

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	Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Green Building & Sustainability	T29	2.5	-	④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mobile & Network Services	T42	2.5	-	①
		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	-	②③④
		Aerospace Engineering	T51	2.5	-	②③④
		Aviation Management & Services	T04	2.5	-	③④
		Big Data Management & Governance	T60	2.5	-	①
		Biomedical Engineering	T38	2.5	-	②③④
		Business Intelligence & Analytics	T57	2.5	-	①
		Business Process & Systems Engineering	T43	2.5	-	④
		Clean Energy	T52	2.5	-	①③④
		Computer Engineering	T13	2.5	3.5	①③④⑨⑩
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Electronics	T05	-	3.5	①③④⑨⑩
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Green Building & Sustainability	T29	2.5	-	④
		Infocomm & Network Engineering	T37	2.5	-	①③④
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mechatronics	T06	-	3.5	①③④⑨⑩
		Media & Communication Technology	T12	-	3.5	①③④⑨⑩

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	Microelectronics	T14	-	3.5	①③④⑨⑩
		Mobile & Network Services	T42	2.5	-	①
		Product & Industrial Design	T35	3.0	-	②③④
IT50	Air-Conditioning & Refrigeration Engineering	Green Building & Sustainability	T29	2.5	-	④
IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Computer Engineering	T13	2.5	-	①③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Green Building & Sustainability	T29	2.5	-	④
		Information Technology	T30	2.5	-	
		Integrated Facility Management	T28	2.5	-	④
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mobile & Network Services	T42	2.5	-	①
		Product & Industrial Design	T35	3.0	-	②③④
IT52	Mechanical Engineering	3D Interactive Media Technology	T49	2.5	-	②④
		Aerospace Engineering	T51	2.5	-	②③④
		Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Computer Engineering	T13	2.5	-	①③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Green Building & Sustainability	T29	2.5	-	④
		Information Technology	T30	2.5	-	
		Integrated Facility Management	T28	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	
IT52	Mechanical Engineering	Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mobile & Network Services	T42	2.5	-	①
		Product & Industrial Design	T35	3.0	-	②③④
IT54	Mechanical Engineering Drawing & Design	Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Product & Industrial Design	T35	3.0	-	②③④
IT55	Manufacturing Engineering	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Computer Engineering	T13	2.5	-	①③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
		Mobile & Network Services	T42	2.5	-	①
		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	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Communication Design	T59	3.0	-	②④
		Computer Engineering	T13	2.5	-	①③④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Infocomm & Network Engineering	T37	2.5	-	①③④
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT57	Wireless Technology	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①

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	Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Infocomm & Network Engineering	T37	2.5	-	①③④
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
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	-	①
		Biomedical Science	T27	3.0	-	②④
		Biotechnology	T31	2.5	-	④
		Business Intelligence & Analytics	T57	2.5	-	①
		Chemical Engineering	T33	2.5	-	④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
		Pharmaceutical Science	T25	2.5	-	④
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	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Chemical Engineering	T33	2.5	-	④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①

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	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT61	Network Security Technology	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Infocomm & Network Engineering	T37	2.5	-	①③④
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT62	Paramedic & Emergency Care	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Gerontological Management Studies	T53	3.0	-	
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT63	Game Design & Development	3D Interactive Media Technology	T49	2.5	-	②④
		Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Communication Design	T59	3.0	-	②④
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①

ITE Code	ITE Qualification (Higher NITEC/ ITC/ CBS)	Courses	MOE Code	Min GPA^ for Entry to		Refer to footnote
				Year 1	Year 2	
IT63	Game Design & Development	Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
		Product & Industrial Design	T35	3.0	-	②③④
IT64	Business Information Systems	Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
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	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT67	Civil & Structural Engineering Design	Green Building & Sustainability	T29	2.5	-	④
		Product & Industrial Design	T35	3.0	-	②③④
IT68	Facility Systems Design	Green Building & Sustainability	T29	2.5	-	④
		Integrated Facility Management	T28	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	
IT69	Information Systems Quality	Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT70	Mobile Unified Communications	Big Data Management & Governance	T60	2.5	-	①
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Infocomm & Network Engineering	T37	2.5	-	①③④
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT74	Aerospace Engineering	Aerospace Electronics	T50	2.5	-	②③④
		Aerospace Engineering	T51	2.5	-	②③④
		Computer Engineering	T13	2.5	-	①③④
		Electrical & Electronic Engineering Programme	T05	2.5	-	③④⑧
		Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
IT75	Advanced Manufacturing	Mechatronics/ Aerospace Engineering	T06	2.5	-	③④⑧
IT76	e-Business Programming	Big Data Management & Governance	T60	2.5	-	①
		Business Information Technology	T36	2.5	-	①④
		Business Intelligence & Analytics	T57	2.5	-	①
		Cyber & Digital Security	T15	2.5	-	①
		Digital Forensics	T55	2.5	-	①
		Financial Business Informatics	T17	2.5	-	
		Game Design & Development	T58	2.5	-	①
		Information Technology	T30	2.5	-	
		Mobile & Network Services	T42	2.5	-	①
IT77	Facility Management	Green Building & Sustainability	T29	2.5	-	④
		Integrated Facility Management	T28	2.5	-	④
IT78	Shipping Ops & Services	Business/ Logistics & Operations Management/ Marketing	T01	3.0	-	⑥

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 pass a pre-enrolment 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 offered.

① Applicants with complete colour vision deficiency are not eligible to apply.

② Applicants with partial or complete colour vision deficiency are not eligible to apply.

③ 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.

④ Applicants with severe vision impairment are not eligible to apply.

⑤ In addition to satisfying the Fitness requirement at the Polytechnic's pre-enrolment medical examination and medical requirements of other regulatory authorities (if applicable), applicants offered a place in T54 (Diploma 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 Early Childhood Studies course:

Acquired Immune Deficiency Syndrome (AIDS) / Human Immunodeficiency Virus (HIV)	Mobility restricted	Uncontrolled asthma
Active tuberculosis	Physical dependence upon mobility equipment	Uncontrolled diabetes
HBsAg positive / Hepatitis B Carrier	Profound deafness	Uncontrolled epilepsy
Legal Blindness	Psychiatric condition	Uncontrolled hypertension

⑥ The first year in T01 (Business/Logistics & Operations Management/Marketing) is common to all students and they will opt for one of the diplomas (i.e. Diploma in Business, Diploma in Logistics & Operations Management, or Diploma in Marketing) at the end of Year 1.

⑦ Applicants applying for T09 (Diploma in Law & Management) must also possess at least a B4 grade in English Language (EL1) in the GCE O Level/ SPM examinations.

⑧ The first semester in the following courses 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	②③④
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Media & Communication Technology	①③④
Diploma in Microelectronics	①③④

• Mechatronics/ Aerospace Engineering (T06):

Diploma course	Refer to footnote
Diploma in Aerospace Engineering	②③④
Diploma in Mechatronics	①③④

⑨ For entry to Year 2 of the following courses, applicants applying through the Joint Polytechnic Admissions Exercise (JPAE) are to select the respective polytechnic course code as indicated in the bracket below:

- Diploma in Computer Engineering (T132)
- Diploma in Electronics (T052)
- Diploma in Media & Communication Technology (T122)
- Diploma in Microelectronics (T142)
- Diploma in Mechatronics (T062)

⑩ Applicants applying for entry to Year 2 of the courses must also possess one of the following:

- Must have "Passed" the ITE Bridging Mathematics (BM1 or BM2) programme, or
- Obtained at least a C6 grade in Mathematics in the GCE O Level/ SPM examinations

National ITE Certificate (NITEC)

To be eligible for consideration for admission, applicants must have a minimum GPA of 3.5 (inclusive of CCA bonus points) and the relevant ITE 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
		Retail & Hospitality Design	T47	②④
NT23	Civil & Structural Drafting/ Building Drafting (Civil & Structural)	Product & Industrial Design	T35	②③④
NT24	Electronics/ Electronics Servicing/ Electronics (Computer & Networking)/ Electronics (Instrumentation)/ Electronics (Mobile Devices)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)/ Electronics (Broadband Technology & Services)	Aerospace Electronics	T50	②③④
		Aerospace Engineering	T51	②③④
		Big Data Management & Governance	T60	①
		Biomedical Engineering	T38	②③④
		Business Intelligence & Analytics	T57	①
		Business Process & Systems Engineering	T43	④
		Clean Energy	T52	①③④
		Computer Engineering	T13	①③④
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Electrical & Electronic Engineering Programme	T05	③④⑧
		Game Design & Development	T58	①
		Green Building & Sustainability	T29	④
		Information Technology	T30	
		Mechatronics/ Aerospace Engineering	T06	③④⑧
		Mobile & Network Services	T42	①

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT25	Electro-Mechanical Servicing/ Mechatronics/ Mechatronics (Automation Technology)/ Mechatronics (Equipment Assembly)/ Mechatronics (Medical Technology)	Aerospace Engineering	T51	②③④
		Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Clean Energy	T52	①③④
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mechatronics/ Aerospace Engineering	T06	③④⑧
		Mobile & Network Services	T42	①
NT26	Electrical Fitting & Installation/ Electrical Installation & Servicing/ Electrical Technology/ Electrical Technology (Installation & Servicing)	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Clean Energy	T52	①③④
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Green Building & Sustainability	T29	④
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT27	Electrical Power & Machines/ Electrical Technology (Power & Control)/ Electrical Technology (Power & Machines)	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Clean Energy	T52	①③④
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Green Building & Sustainability	T29	④
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT28	Air-Conditioning & Refrigeration/ Air-Conditioning & Refrigeration Mechanics/ Air-Conditioning & Refrigeration Technology	Green Building & Sustainability	T29	④

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT30	Maintenance Fitting/ Mechanical Servicing/ Mechanical Technology	Mechatronics/ Aerospace Engineering	T06	③④⑧
		Product & Industrial Design	T35	②③④
NT32	Precision Machining/ Precision Engineering (Machining)	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mechatronics/ Aerospace Engineering	T06	③④⑧
		Mobile & Network Services	T42	①
NT37	Precision Engineering (Injection Mould)/ Precision Engineering (Press Tool)/ Precision Engineering (Tool & Mould)/ Precision Tooling/ Tool & Die-Making	Mechatronics/ Aerospace Engineering	T06	③④⑧
		Product & Industrial Design	T35	②③④
NT38	Building Servicing/ Building Services Technology/ Building Services Technology (Air-conditioning & Refrigeration)/ Building Services Technology (Mechanical & Electrical Services)/ Facility Technology (Air-Conditioning & Refrigeration)	Green Building & Sustainability	T29	④
		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

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT40	Info-Communications Technology/ Info-Communications Technology (Networking & System Administration)	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Infocomm & Network Engineering	T37	①③④
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT41	Multimedia Technology	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Cyber & Digital Security	T15	①
		Digital Film & Television	T23	②④
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Infocomm & Network Engineering	T37	①③④
		Information Technology	T30	
		Mobile & Network Services	T42	①
		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	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Cyber & Digital Security	T15	①
		Digital Film & Television	T23	②④
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mobile & Network Services	T42	①
		Product & Industrial Design	T35	②③④

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT46	Product Design	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Environment Design	T46	②④
		Game Design & Development	T58	①
		Information Technology	T30	
		Interior Architecture & Design	T22	②④
		Mobile & Network Services	T42	①
		Product & Industrial Design	T35	②③④
		Retail & Hospitality Design	T47	②④
NT47	Communications Technology	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Electrical & Electronic Engineering Programme	T05	③④⑧
		Game Design & Development	T58	①
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT48	Precision Engineering (Aerospace)	Aerospace Engineering	T51	②③④
		Mechatronics/ Aerospace Engineering	T06	③④⑧
		Product & Industrial Design	T35	②③④
NT51	Aircraft Maintenance (Mechanical)	Aerospace Engineering	T51	②③④
		Mechatronics/ Aerospace Engineering	T06	③④⑧
NT52	Digital Animation	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT52	Digital Animation	Information Technology	T30	
		Mobile & Network Services	T42	①
		Product & Industrial Design	T35	②③④
NT53	Aerospace Technology	Aerospace Engineering	T51	②③④
		Mechatronics/ Aerospace Engineering	T06	③④⑧
NT54	Digital Media Design (Digital Video Effects)	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Cyber & Digital Security	T15	①
		Digital Film & Television	T23	②④
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT56	Digital Audio and Video Production	3D Interactive Media Technology	T49	②④
		Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Cyber & Digital Security	T15	①
		Digital Film & Television	T23	②④
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT57	Security Technology	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mobile & Network Services	T42	①

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT59	Aerospace Avionics	Aerospace Electronics	T50	②③④
		Computer Engineering	T13	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑧
NT60	Electrical Technology (Lighting & Sound)	Electrical & Electronic Engineering Programme	T05	③④⑧
		Integrated Facility Management	T28	④
NT61	Facility Technology (Landscaping Services)	Environment Design	T46	②④
		Green Building & Sustainability	T29	④
		Integrated Facility Management	T28	④
NT62	Machine Technology	Mechatronics/ Aerospace Engineering	T06	③④⑧
NT63	Facility Technology (Mechanical & Electrical Services)	Green Building & Sustainability	T29	④
		Integrated Facility Management	T28	④
NT64	Medical Manufacturing Technology	Mechatronics/ Aerospace Engineering	T06	③④⑧
NT65	Space Design (Architecture)	Communication Design	T59	②④
		Environment Design	T46	②④
		Interior Architecture & Design	T22	②④
		Product & Industrial Design	T35	②③④
		Retail & Hospitality Design	T47	②④
NT66	Space Design (Interior & Exhibition)	Communication Design	T59	②④
		Environment Design	T46	②④
		Interior Architecture & Design	T22	②④
		Product & Industrial Design	T35	②③④
		Retail & Hospitality Design	T47	②④
NT67	Aerospace Machining Technology	Mechatronics/ Aerospace Engineering	T06	③④⑧
NT68	Laser & Tooling Technology	Mechatronics/ Aerospace Engineering	T06	③④⑧
NT70	Interactive Media Design	3D Interactive Media Technology	T49	②④
		Communication Design	T59	②④
		Game Design & Development	T58	①
NT71	Visual Communication	3D Interactive Media Technology	T49	②④
		Communication Design	T59	②④
		Game Design & Development	T58	①

ITE Code	ITE Qualification (NITEC/NTC Grade 2-COM)	Courses	MOE Code	Refer to footnote
NT72	Visual Effects	3D Interactive Media Technology	T49	②④
		Communication Design	T59	②④
		Digital Film & Television	T23	②④
		Game Design & Development	T58	①
NT73	Facility Technology (Vertical Transportation)	Green Building & Sustainability	T29	④
		Integrated Facility Management	T28	④
NT74	Mobile Systems & Services	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT76	Semiconductor Technology/ Electronics (Microelectronics)	Computer Engineering	T13	①③④
		Electrical & Electronic Engineering Programme	T05	③④⑧
NT79	Info-Communications Technology (Cloud Computing)	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Cyber & Digital Security	T15	①
		Digital Forensics	T55	①
		Game Design & Development	T58	①
		Infocomm & Network Engineering	T37	①③④
		Information Technology	T30	
		Mobile & Network Services	T42	①
NT80	Social Media & Web Development	Big Data Management & Governance	T60	①
		Business Intelligence & Analytics	T57	①
		Communication Design	T59	②④
		Game Design & Development	T58	①
		Information Technology	T30	
NT82	Fashion Apparel Production & Design	Apparel Design & Merchandising	T20	②④

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 pass a pre-enrolment 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 offered.

① Applicants with complete colour vision deficiency are not eligible to apply.
② Applicants with partial or complete colour vision deficiency are not eligible to apply.
③ 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.
④ Applicants with severe vision impairment are not eligible to apply.
⑧ The first semester in the following courses 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	②③④
Diploma in Computer Engineering	①③④
Diploma in Electronics	①③④
Diploma in Media & Communication Technology	①③④
Diploma in Microelectronics	①③④

• Mechatronics/ Aerospace Engineering (T06):

Diploma course	Refer to footnote
Diploma in Aerospace Engineering	②③④
Diploma in Mechatronics	①③④

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 will not be eligible to pursue the course of study and may be offered alternative options.	• 3D Interactive Media Technology • Aerospace Electronics* • Aerospace Engineering* • Apparel Design & Merchandising • Biomedical Engineering* • Biomedical Science • Communication Design • Digital Film & Television • Environment Design • Interior Architecture & Design • Product & Industrial Design • Retail & Hospitality Design
Colour vision deficiency (complete)	Applicants to these courses must ensure that they do not suffer from complete colour vision deficiency. Those who do not satisfy this requirement will not be eligible to pursue the course of study and may be offered alternative options.	• Big Data Management & Governance • Business Information Technology • Business Intelligence & Analytics • Clean Energy* • Computer Engineering* • Cyber & Digital Security • Digital Forensics • Electronics* • Game Design & Development • Infocomm & Network Engineering* • Mechatronics* • Media & Communication Technology* • Microelectronics* • Mobile & Network Services • Veterinary Technology
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 will not be eligible to pursue into the course of study and may be offered alternative options.	• Aerospace Electronics* • Aerospace Engineering* • Aviation Management & Services • Biomedical Engineering* • Clean Energy* • Communications & Media Management • Computer Engineering* • Culinary & Catering Management • Electrical & Electronic Engineering Programme* • Electronics* • Infocomm & Network Engineering* • Mechatronics / Aerospace Engineering • Mechatronics* • Media & Communication Technology* • Microelectronics* • Product & Industrial Design • Retail Management

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 will not be eligible to pursue the course of study and may be offered alternative options.	• 3D Interactive Media Technology • Aerospace Electronics* • Aerospace Engineering* • Apparel Design & Merchandising • Applied Food Science & Nutrition • Aviation Management & Services • Baking & Culinary Science • Biomedical Engineering* • Biomedical Science • Biotechnology • Business Information Technology • Business Process & Systems Engineering • Chemical Engineering • Clean Energy* • Common Engineering Programme* • Communication Design • Communications & Media Management • Computer Engineering* • Culinary & Catering Management • Digital Film & Television • Electrical & Electronic Engineering Programme* • Electronics* • Environment Design • Green Building & Sustainability • Infocomm & Network Engineering* • Integrated Facility Management • Interior Architecture & Design • Mechatronics* • Mechatronics / Aerospace Engineering • Media & Communication Technology* • Microelectronics* • Pharmaceutical Science • Product & Industrial Design • Retail & Hospitality Design • Retail Management • Veterinary Technology

Medical Conditions	Requirements	Courses
Physical disabilities	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: • Active tuberculosis • Acquired immune deficiency syndrome (AIDS) / Human Immunodeficiency Virus (HIV) • HBsAg positive / Hepatitis B Carrier • Legal Blindness • Mobility restricted • Physical dependence upon mobility equipment • Profound deafness • Psychiatric condition • Uncontrolled asthma • Uncontrolled diabetes • Uncontrolled epilepsy • Uncontrolled hypertension	• Early Childhood Studies (Not applicable to PFP)

*Note: * 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 Grades of B3 – C6	2 points 1 point
Singapore-Cambridge GCE N Level	ELMAB3	Grades of A1 – A2 Grades of B3 – C6	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 2014 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 or contact the NS Call Centre at Tel: 1800-3676767/email: 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 fulltime 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 was established in April 2011 to oversee the planning and implementation of the Polytechnic Foundation Programme (PFP) 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.

Polytechnic Foundation Programme
With the aim to prepare you 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 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. Classes will be conducted in small 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)
- Retail & Hospitality Design (T47)

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)
- Infocomm & Network Engineering (T37)
- Integrated Facility Management (T28)
- Mechatronics/Aerospace Engineering (T06)

School of Informatics & IT
- Big Data Management & Governance (T60) *(NEW)*
- Business Intelligence & Analytics (T57)
- Cyber & Digital Security (T15)
- Digital Forensics (T55)
- Financial Business Informatics (T17)
- Game Design & Development (T58)
- Information Technology (T30)
- Mobile & Network Services (T42)

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) *(Renamed & Revised)*
- 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

The 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 other 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.

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 "Other 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.

Application

Eligible Secondary N(A) students will be invited to apply upon the release of the Singapore-Cambridge GCE O Level examination results, under the Polytechnic Foundation Programme Admission Exercise (PFPAE). Successful applicants will be posted to the corresponding Polytechnic Foundation Programme for the diploma courses that they have been offered a provisional place in. For detailed information, please refer to the section on "Admissions and Requirements".

Progress To Diploma Course

Students **must** pass all subjects of the one-year PFP to progress to the first year of their chosen diploma course.

Course Structure

The following tables show the course structure for Semester 1 and Semester 2 of the PFP. The PFP curriculum includes five common subjects and two domain cluster subjects each semester.

Common Subjects	Semester 1 (Total: 26 cu)	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)

Common Subjects	Semester 2 (Total: 28 cu)	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)

**cu – credit units*

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 taught 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.

School of Applied Science

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.

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.

Schools of Business and Humanities & Social Sciences

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.

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.

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.

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.

School of Design

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.

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.

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.

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.

School of Engineering

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 interrelationships. The topics taught include Speed; Velocity; Acceleration; Forces; Mass; Density; Turning Effects of Forces; Moments; Gravity and Stability.

EPT1F01 Prototyping
This subject imparts the practical skills of building a project to you, and helps you 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.

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.

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.

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 & Industry Service 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 is located at:
International Students Office
Student Development Centre
Block 30 Level 1
Telephone: 6780 5195
Email: 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 TP's International Students Office 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 15 years of experience, the award winning interest group organises regular activities to promote cross-cultural awareness and friendship and at the same time, providing 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 to 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. While TP will provide guidance to international students in their application for the TG, it is of utmost importance that you complete the execution of the TG within the stipulated timeframe provided by the Ministry of Education. Details on the application of TG are available in the enrolment package.

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 AY2015/2016 are S$8,560.00 and S$163.60 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 between $40 to $50 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 or write to us at 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:

Country	Entry Qualification
Australia	• New South Wales (Higher School Certificate) • Northern Territory (South Australian Certificate of Education – 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 (Victorian Certificate of Education – Year 12) • Western Australia (Western Australian Certificate of Education – Year 12)
Bangladesh	• Higher Secondary Certificate (HSC) / Intermediate Certificate
Canada	• Alberta (General High School Diploma) • British Columbia (Senior Secondary Graduation Diploma) • Manitoba (High School Graduation Diploma) • New Brunswick (High School Graduation Diploma) • Newfoundland (High School Graduation Diploma) • NW Territories (General High School Diploma) • Nova Scotia (High School Completion Certificate) • Ontario (Ontario Secondary School Diploma) • Prince Edward Island (High School Graduation Diploma) • Quebec (High School Diploma / Diplome d'Etudes Secondaires (DES) / Secondary Grade V Certificate) • Saskatchewan (Secondary Graduation Diploma) • Yukon Territory (Senior Secondary Graduation Diploma)
China	• National College Entrance Examination (NCEE), also known as 'Gao Kao'
Hong Kong	• Hong Kong Certificate of Education Examination (HKCEE) • Hong Kong Advanced Level Examination (HKALE) • Hong Kong Diploma of Secondary Education (HKDSE)
India	• Secondary School Certificate (Year 10) – Year 10 Indian Certificate of Secondary Education (ICSE) / Central Board of Secondary Education (CBSE) / Year 10 from other State Boards • Senior School Certificate (Year 12) – Year 12 from all State Boards
Indonesia	• National Final Examinations (SMA Ebtanas, SMU Ebtanas, or UAN)
Korea	• College Scholastic Ability Test (CSAT)
Malaysia	• Sijil Pelajaran Malaysia (SPM) / Sijil Tinggi Persekolahan Malaysia (STPM) • Unified Examination Certificate (UEC)
Myanmar	• Basic Education High School Examination Certificate (B.E.H.S) / Matriculation - (Standard 10)
Nepal	• Proficiency Certificate
Pakistan	• Intermediate / Higher Secondary School Certificate (HSC)
Philippines	• High School Diploma / Certificate with High School Final Year Results / National Career Assessment Examination (NCAE)
Sri Lanka	• Sri Lanka General Certificate of Education (Ordinary Level)
Thailand	• Mathayom 6 (M6) • MAW 6 – Grade 12
UK	• General Certificate of Secondary Education (GCSE)
USA	• High School Graduation Diploma • Year 12
Vietnam	• Year 12 High School Graduation Certificate of National Examination
Others	• International General Certificate of Secondary Education (IGCSE) • International Baccalaureate (IB) Diploma

Note:
1. Applicants whose qualifications not listed under the Minimum Entry Requirement will be assessed on a case-by-case basis.
2. Applicants applying for design courses are required to submit their portfolio together with their application.
3. Shortlisted applicants may be required to attend interview and / or take an entrance test upon request by the polytechnic.
4. Results should be submitted with information of the subject maximum score and grading scheme / scale.

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 in S$	Yearly in S$
Accommodation (1 person per room)	600 – 700	7,200 – 8,400
Food	300 – 400	3,600 – 4,800
Public Transport (Cost varies. You can apply for the Student EZ-Link Card to travel on public transport at concession rate)	50 – 100	600 – 1,200
Books (Cost varies depending on course enrolled into)	-	250 – 500
Class Fund	-	50 – 200
Personal Expenses (Cost varies depending on individual spending habits)	30 – 100	360 – 1,200
Hospitalisation & Surgical Insurance (The premium is subject to review and change)	-	40 – 50
Estimated Total	980 – 1,300	12,100 – 16,350

Your living expenses are estimated to be between S$980 to S$1,300 per month or between S$12,100 to S$16,350 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

COURSE FEE INFORMATION FOR FULL-TIME SUBSIDISED DIPLOMA STUDENTS

The total course fees for full-time subsidised diploma courses are made up of Tuition Fee, Tuition Grant and Other Fees.

Tuition Fee
Tuition Fees* (after the government subsidy) for Academic Year 2015/2016 for all full-time subsidised diploma courses and payable in two semesters per academic year, are as follows:

- $2,500 for Singapore citizens
- $5,000 for Singapore Permanent Residents
- $8,350 for international students

** Fees are in Singapore dollars and subject to change.*

Other Fees
Besides Tuition Fee, Other Fees are payable once every academic year by all full-time students. 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 Tuition Grant (TG) Scheme was introduced by the Government to subsidise the high cost of tertiary education in Singapore. The TG Scheme is currently open to students enrolled in full-time subsidised diploma courses (subject to guidelines under existing Ministry of Education (MOE) Tuition Grant policy). In return for Government subsidy received under the Scheme, non-Singaporean students (including Singapore Permanent Residents) are required to sign a TG Agreement. These students will be contractually obliged to work for Singapore-based companies for three years upon graduation.

For more details of the scheme, please refer to MOE's website at tgonline.moe.gov.sg/tgis/normal/index.

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 Subsidised Diploma Students

(For Singapore Citizens who are eligible for Tuition Grant)

Fee Item	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee	**2,500.00**	**1,250.00**	**1,250.00**
Tuition Fee with GST	2,675.00	1,337.50	1,337.50
GST subsidy on Tuition Fee	(175.00)	(87.50)	(87.50)
Tuition Grant	**15,100.00**	**7,550.00**	**7,550.00**
Tuition Grant with GST	16,157.00	8,078.50	8,078.50
GST subsidy on Tuition Grant	(1,057.00)	(528.50)	(528.50)
Other Fees	**123.60**	**123.60**	**0.00**
Examination Fee	32.10	32.10	0.00
GST subsidy on Examination Fee	(2.10)	(2.10)	0.00
GPA Insurance Fee	4.60	4.60	0.00
Sports Fee	25.00	25.00	0.00
Miscellaneous Fee	26.50	26.50	0.00
Orientation Fee*	10.50	10.50	0.00
Application Fee #	7.00	7.00	0.00
Students' Union Fee	20.00	20.00	0.00
TOTAL Fee Chargeable	**17,723.60**	**8,923.60**	**8,800.00**
Tuition Grant Awarded	**(15,100.00)**	**(7,550.00)**	**(7,550.00)**
Fees Payable	**2,623.60**	**1,373.60**	**1,250.00**

** Only applicable to April intake.*

 # An Application Fee is payable when students apply to TP via admission exercises other than the JAE. For applications made via JAE, the Polytechnic will collect $7 for JAE Application and/or $10 JAE Amendment Fees from the student where applicable, on behalf of MOE.

All fees except Student Union fee are inclusive of GST. Please note that the fees and fee rates are subject to review and change.

Summary of Fees for Full-Time Subsidised Diploma Students

(For Singapore Permanent Residents who are eligible and opt for Tuition Grant)

Fee Item	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee	**5,000.00**	**2,500.00**	**2,500.00**
Tuition Fee with GST	5,350.00	2,675.00	2,675.00
GST subsidy on Tuition Fee	(350.00)	(175.00)	(175.00)
Tuition Grant	**15,100.00**	**7,550.00**	**7,550.00**
Tuition Grant with GST	16,157.00	8,078.50	8,078.50
GST subsidy on Tuition Grant	(1,057.00)	(528.50)	(528.50)
Other Fees	**123.60**	**123.60**	**0.00**
Examination Fee	32.10	32.10	0.00
GST subsidy on Examination Fee	(2.10)	(2.10)	0.00
GPA Insurance Fee	4.60	4.60	0.00
Sports Fee	25.00	25.00	0.00
Miscellaneous Fee	26.50	26.50	0.00
Orientation Fee*	10.50	10.50	0.00
Application Fee #	7.00	7.00	0.00
Students' Union Fee	20.00	20.00	0.00
TOTAL Fee Chargeable	**20,223.60**	**10,173.60**	**10,050.00**
Tuition Grant Awarded	**(15,100.00)**	**(7,550.00)**	**(7,550.00)**
Fees Payable	**5,123.60**	**2,623.60**	**2,500.00**

** Only applicable to April intake.*

 # An Application Fee is payable when students apply to TP via admission exercises other than the JAE. For applications made via JAE, the Polytechnic will collect $7 for JAE Application and/or $10 JAE Amendment Fees from the student where applicable, on behalf of MOE.

All fees except Student Union fee are inclusive of GST. Please note that fees are subject to review and change.

Summary of Fees for Full-Time Subsidised Diploma Students

(For international students who are eligible and opt for Tuition Grant)

Fee Item	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee	**8,350.00**	**4,175.00**	**4,175.00**
Tuition Fee with GST	8,934.50	4,467.25	4,467.25
GST subsidy on Tuition Fee	(584.50)	(292.25)	(292.25)
Tuition Grant	**15,100.00**	**7,550.00**	**7,550.00**
Tuition Grant with GST	16,157.00	8,078.50	8,078.50
GST subsidy on Tuition Grant	(1,057.00)	(528.50)	(528.50)
Other Fees	**163.60**	**163.60**	**0.00**
Examination Fee	32.10	32.10	0.00
GST subsidy on Examination Fee	(2.10)	(2.10)	0.00
GPA Insurance Fee	4.60	4.60	0.00
Sports Fee	25.00	25.00	0.00
Miscellaneous Fee	26.50	26.50	0.00
Orientation Fee*	10.50	10.50	0.00
GHS Insurance	40.00	40.00	0.00
Application Fee #	7.00	7.00	0.00
Students' Union Fee	20.00	20.00	0.00
TOTAL Fee Chargeable	**23,613.60**	**11,888.60**	**11,725.00**
Tuition Grant Awarded	**(15,100.00)**	**(7,550.00)**	**(7,550.00)**
Fees Payable	**8,513.60**	**4,338.60**	**4,175.00**

** Only applicable to April intake.*

 # An Application Fee is payable when students apply to TP via admission exercises other than the JAE. For applications made via JAE, the Polytechnic will collect $7 for JAE Application and/or $10 JAE Amendment Fees from the student where applicable, on behalf of MOE.

All fees except Student Union fee are inclusive of GST. Please note that fees are subject to review and change.

Summary of Fees for Diploma Students Paying Full Fees

(a) Students who are not eligible for Tuition Grant; OR
(b) Singapore Permanent Resident/International students who are eligible for Tuition Grant but choose to opt out of Tuition Grant.

Summary of fees for non-subsidised Singapore Citizen Students

Fees	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee + Other Fees	2,800.70	1,463.20	1,337.50
Additional Training Fee for non-subsidised student	16,157.00	8,078.50	8,078.50
Fees Payable	**18,957.70**	**9,541.70**	**9,416.00**

Summary of fees for non-subsidised Singapore Permanent Resident Students

Fees	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee + Other Fees	5,475.70	2,800.70	2,675.00
Additional Training Fee for non-subsidised student	16,157.00	8,078.50	8,078.50
Fees Payable	**21,632.70**	**10,879.20**	**10,753.50**

Summary of fees for non-subsidised International Students

Fees	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee + Other Fees	9,100.20	4,632.95	4,467.25
Additional Training Fee for non-subsidised student	16,157.00	8,078.50	8,078.50
Fees Payable	**25,257.20**	**12,711.45**	**12,545.75**

Please note that the fees and fee rates are subject to review and change.

Non-subsidised students are not allowed to apply for financial schemes.

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 2015/2016 for PFP courses and payable in two semesters per academic year are as follows:

- $330 for Singapore Citizens
- $2,150 for Singapore Permanent Residents
- $8,000 for International Students

** Fees are in Singapore dollars and subject to change.*

Other Fees
Besides Tuition Fee, Other Fees are payable once every academic year by all PFP students. 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 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee	**330.00**	**165.00**	**165.00**
Tuition Fee with GST	353.10	176.55	176.55
GST subsidy on Tuition Fee	(23.10)	(11.55)	(11.55)
Other Fees	**125.70**	**125.70**	**0.00**
Examination Fee	32.10	32.10	0.00
GPA Insurance Fee	4.60	4.60	0.00
Sports Fee	25.00	25.00	0.00
Miscellaneous Fee	26.50	26.50	0.00
Orientation Fee*	10.50	10.50	0.00
Application Fee	7.00	7.00	0.00
Students' Union Fee	20.00	20.00	0.00
TOTAL Fee Chargeable	**455.70**	**290.70**	**165.00**
Fees Payable	**455.70**	**290.70**	**165.00**

** Only applicable to April intake.*

All fees except Student Union fee are inclusive of GST. Please note that the fees and fee rates are subject to review and change.

Summary of Fees for Polytechnic Foundation Programme Students

(For Singapore Permanent Residents)

Fee Item	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee	**2,150.00**	**1,075.00**	**1,075.00**
Tuition Fee with GST	2,300.50	1,150.25	1,150.25
GST subsidy on Tuition Fee	(150.50)	(75.25)	(75.25)
Other Fees	**125.70**	**125.70**	**0.00**
Examination Fee	32.10	32.10	0.00
GPA Insurance Fee	4.60	4.60	0.00
Sports Fee	25.00	25.00	0.00
Miscellaneous Fee	26.50	26.50	0.00
Orientation Fee*	10.50	10.50	0.00
Application Fee	7.00	7.00	0.00
Students' Union Fee	20.00	20.00	0.00
TOTAL Fee Chargeable	**2,275.70**	**1,200.70**	**1,075.00**
Fees Payable	**2,275.70**	**1,200.70**	**1,075.00**

** Only applicable to April intake.*

All fees except Student Union fee are inclusive of GST. Please note that the fees and fee rates are subject to review and change.

Summary of Fees for Polytechnic Foundation Programme Students

(For International Students)

Fee Item	AY 2015/2016 (S$)	Semester 1 (S$)	Semester 2 (S$)
Tuition Fee	**8,000.00**	**4,000.00**	**4,000.00**
Tuition Fee with GST	8,560.00	4,280.00	4,280.00
GST subsidy on Tuition Fee	(560.00)	(280.00)	(280.00)
Other Fees	**165.70**	**165.70**	**0.00**
Examination Fee	32.10	32.10	0.00
GPA Insurance Fee	4.60	4.60	0.00
Sports Fee	25.00	25.00	0.00
Miscellaneous Fee	26.50	26.50	0.00
Orientation Fee*	10.50	10.50	0.00
GHS Insurance	40.00	40.00	0.00
Application Fee	7.00	7.00	0.00
Students' Union Fee	20.00	20.00	0.00
TOTAL Fee Chargeable	**8,165.70**	**4,165.70**	**4,000.00**
Fees Payable	**8,165.70**	**4,165.70**	**4,000.00**

** Only applicable to April intake.*

All fees except Student Union fee are inclusive of GST. Please note that the fees and fee rates are subject to review and change.

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 fee tax invoice prior to deduction.

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.

Late Fee
A late fee of $15 shall be imposed if fees are not settled by the due date as stipulated on the fee tax invoice, or as advised by the Finance & Administration Department.

Issuance of Receipts
Receipts are issued for payments made at the Finance & Administration Department @ One-Stop Service Centre. For cheque payments received by post, receipts shall be issued upon request.

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	Fee Payable
i) Before the start and up to first 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 Tuition Fee + Other Fees (excluding 100% of Sports fee, Exam fee and Miscellaneous fee) + 25% of Additional Training Fee for non-subsidised student, if applicable
iii) After the 1st week of the semester	100% of (Tuition Fee + Other Fees + Additional Training Fee for non-subsidised student, if applicable)

Financial Schemes

The following schemes are available for all full-time subsidised diploma students. Only PSEA scheme is available for 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.

Post-Secondary Education Account (PSEA)
Full-time subsidised 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 Ministry of Education (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 subsidised diploma students can 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 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 subsidised diploma students can 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 scheme application forms which are available at Temasek Polytechnic's website or can be collected from the Finance & Administration Department, at the One-Stop Service Centre.

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 cover tuition and miscellaneous fees while some may cover living or even laptop allowance.

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 for details.

Bursaries
Bursaries are awarded to students who require financial assistance to continue their studies at TP. There are several bursary schemes available for such students. Please visit tp.edu.sg/home/admissions/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
a. Singapore Citizens (PR must be citizen upon contract signing);
b. At least 16½ years old;
c. 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.

Joint Polytechnic – Singapore Armed Forces Diploma Sponsorship

Army	**Combat Specialist** 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. **Service Vocation Specialist** 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.
Air Force	**Aircrew Specialist** 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. **Air Defence Systems Specialist** 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.

MDES Study Award (Diploma)

Army	**Military Domain Expert** 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.
Navy	**Naval Warfare System Expert (Electronics)** 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. **Naval Warfare System Expert (Electrical & Control Systems)** You are in charge of the ship's electrical system, a crucial component which enables vessels to be out at sea. **Naval Warfare System Expert (Marine Systems)** 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.
Air Force	**Air Force Engineer (Maintenance)** 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. **Air Operations & Systems Expert** 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 & Communication Systems. You are a critical player in the 3rd Generation Air Force.

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 secure with an exciting and challenging career awaiting you in the Singapore Armed Forces.

HOME AWARD (POLYTECHNIC)

This Award sponsors successful applicants for a three-year full-time diploma course in any of the five local polytechnics. It is open to existing polytechnic students as well as students who are awaiting admission to the local polytechnics. Upon graduation, successful recipients 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 Award (Polytechnic):

The HOME Merit Award (Polytechnic)
This offers an annual allowance of $12,000, payment of tuition and compulsory fees, a study bonus of $1,200 per semester if the student passes all modules in that semester, and a grant of up to $3,600 per academic year for approved programmes.

The HOME Study Award (Polytechnic)
This offers an annual allowance of $7,800, 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;
- Already gained admission (or likely to secure a place) in a local polytechnic in any discipline;
- 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.

Recipients will also be eligible for a sign-on bonus of $30,000 for SPF entrants and up to $10,000 for those who join CNB, ICA, SCDF and SPS.

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 their 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 their NS obligations at SAF, SPF or SCDF as determined by CMPB before commencing their four-year bond with the department.

Application Procedure

Interested applicants may apply online for the HOME Award (Polytechnic) at: www.mha.gov.sg/homeaward

The application window is from 1 March 2015 to 31 May 2015, and supporting documents should be submitted within the next seven working days (from the point of application) to the following address:

Ministry of Home Affairs
Home Team Career Centre
New Phoenix Park
28 Irrawaddy Road
Singapore 329560

Interested applicants who have queries or require further clarification may call us at 6636 6024.

In summary, as a member of the Home Team, successful applicants will have the unique opportunity to play their part in keeping Singapore safe and secure in dealing with real-life safety and security challenges facing Singapore. With the HOME Award (Polytechnic), you will not only be given the opportunity to realise your dream career, but will also be allowed to study for a diploma course of your choice and be financially independent at the same time.

FURTHERING YOUR STUDIES

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
- 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

Ireland

- Athlone Institute of Technology
- Carlow Institute of Technology

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
- SIM University
- 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
- Les Roches International School of Hotel Management
- Lucerne University of Applied Sciences & Arts
- University of Applied Sciences Northwestern Switzerland

United Kingdom

- Anglia Ruskin University
- Aston University
- Birmingham City University
- Brunel University
- Cardiff University
- City University
- Coventry University
- Durham 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.

Professional Development Centre

The Professional Development Centre (PDC) at TP is committed to the practical re-skilling and professional development of adult learners. It offers both certificated and public run courses and also conducts customised training programmes for organisations.

Courses offered are in the areas of:
- Aerospace
- Applied Science
- Business Management
- Early Childhood Education
- Engineering
- Financial Management
- Informatics & IT
- Para-Legal Studies
- Security & Safety Management
- Personal Development

To help adult learners acquire valuable knowledge and develop relevant skills to meet the challenges in a dynamic technology-driven economy, the following part-time courses are also offered:

- Diploma in Applied Science (Chemical Technology)
- Diploma in Applied Science (Aquaculture)
- Diploma in Business Practice (Business Administration)
- Diploma in Early Childhood Care & Education – Teaching
- Diploma in Engineering (Aerospace)
- Diploma in Engineering (Operations & Systems Management)
- Diploma in Legal Executive Studies
- Diploma in Police & Security Studies
- Diploma in Security & Fire Safety Studies
- Diploma (Conversion) in Digital Advertising Technology & Analytics
- Specialist Diploma in Accounting & Finance
- Specialist Diploma in Biopharmaceutical Technology
- Specialist Diploma in Laboratory Management and Instrumentation
- Specialist Diploma in Semiconductor Technology
- Specialist Diploma in Energy Management & Sustainable Design
- Specialist Diploma in Environment & Water Technology
- Specialist Diploma in Business Analytics
- Specialist Diploma in Cloud Computing
- Specialist Diploma in Internet of Things
- Specialist Diploma in Big Data Management

Temasek Polytechnic's Diploma and Specialist Diploma programmes are developed in consultation with industry and/or economy agencies to ensure greater curriculum-relevancy to the training needs of adult learners. Each programme is aimed at providing learners with content and skills in core industry domain areas.

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B Arch, MEd

Interior Architecture & Design
Retail & Hospitality Design
Ms Aida Khalid
BA, B Arch

Foundation Studies
Mr Ang Choon Seng, Jeffrey
BA (Multimedia),
MSoSc (Professional Counselling)

Contextual Studies
Mr Ernest Paul
MA (SEAs), BA (Hons), DipEd

SCHOOL OF ENGINEERING

Director
Mrs Lay-Tan Siok Lie
BEng (EE) (Hons), MBA, FIES

Joint Director
Mr Wong Kia Ngee
BEng (EE) (Hons), MSc (EE)

Deputy Directors
Mr Cheah Swee Hock
BEng (Hons), MSc (EE)

Mr Khoo Hock
BSc (Hons), MSc

Mrs Ng-Tia Too Lam, Patricia
BEng (Hons)

Mr See Kok Kee, William
BEng (Hons)

Mr Teo Sze Cheng
BEng (Mech), MIM

Dr Yin Choon Meng
PhD, BEng (Hons)

Assistant Directors
Mr Chang Hark Loong
MSc (EE), MIEE

Mr Paul Yap
BCom (Hons)

Centre Directors
Mr Er Jui Pin
BEng (Hons), MSc (EE), MBA (MIT)

Mr Song Kwok Yuen
BEng (Hons), MBA

Mr Ng Yong Seng
BEng (Electrical)

Senior Managers
Mr Chia Sie Yong
BEng (Hons), MSc (ISE)

Mr Ang Beng Chye
BEng (Hons), MSc (ISE)

Course Managers
3D Interactive Media Technology
Media and Communication Technology
Mr Yan Seow Chiang
BSc (EE), MEng (Tel)

Aerospace Electronics
Mr Tang Fook Heng
BEng (EE) (Hons), MSc (EE)

Aerospace Engineering
Mr Yue Keng Mun
BEng (Hons), MSc (ME)

Aviation Management & Services
Mr Paul Yap
BCom (Hons)

Biomedical Engineering
Mdm Soh Lay Kuan
BSc (EE), MSc (Eng), MBA

Business Process & Systems Engineering
Mr Kok Chee Kong
BEng, MBA

Clean Energy
Mr Khoo Hock
BSc (Hons), MSc

Computer Engineering
Mdm Calaiselvy
BEng, MTech

Common Engineering Programme
Electrical & Electronic Engineering Programme
Mechatronics & Aerospace Programme
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MSc (EE), MIEE

Electronics
Microelectronics
Mr Lim Chuck Mang
BSc (EE), MSc

Green Building & Sustainability
Mr Tang Weng Cheong, Roy
BEng (Hons), MSc (EE), PEng, GMM

Infocomm & Network Engineering
Dr Yin Choon Meng
PhD, BEng (Hons)

Integrated Facility Management
Mr Eu Pui Leong
MSc, MBA

Mechatronics
Ms Chan Choy Peng
BEng (Hons), PhM

SCHOOL OF HUMANITIES & SOCIAL SCIENCES

Director
Mr Ben Lim
MBA (Distinction), MEd, BSc (Hons)

Deputy Directors
CET & Projects
Mr Ang Teck Hua
(Centre for Child Study, Director)
MEd (Ed Psych), BComp

Student Development & Technology
Mr Vincent Bong
B.Sc (Econs), ACIS, PGDipHR

Administration & Academic Support
Mrs Pearl Chong-Lee
MHRM, BComm (Hons)

Course Managers
Early Childhood Studies
Dr Karunawathie Marthenis
Ed.D, BECS (Hons), Dip (ECCE)

Gerontological Management Studies
Ms Julie Spencer
MBA, Grad Dip Ed, BA, RN

Psychology Studies
Ms Elizabeth Tan
BSc (Psy), BA (Hons), Dip Ed

SCHOOL OF INFORMATICS & IT

Director
Mrs Lee-Lim Sok Keow
BSc (Hons), MSc

Deputy Directors
Mr Chin Siew Min, Benny
Beng(Hons), MSc (Emb Sys), ITIL V3 Practitioner

Dr Eng Pin Kwang
BSc (Comp & Info Sc), MSc (CS), PhD (CS)

Mr Oh Chin Lock
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Course Managers
Big Data Management & Governance
Business Intelligence & Analytics
Ms Serena Tai
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Cyber & Digital Security
Digital Forensics
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Financial Business Informatics
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Game Design & Development
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Information Technology
Dr Edirisinghe, EM Nalaka S
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Mobile & Network Services
Ms Pauline Teo
BEng (EE), MSc (CSN)

ACADEMIC CALENDAR AY2015/2016

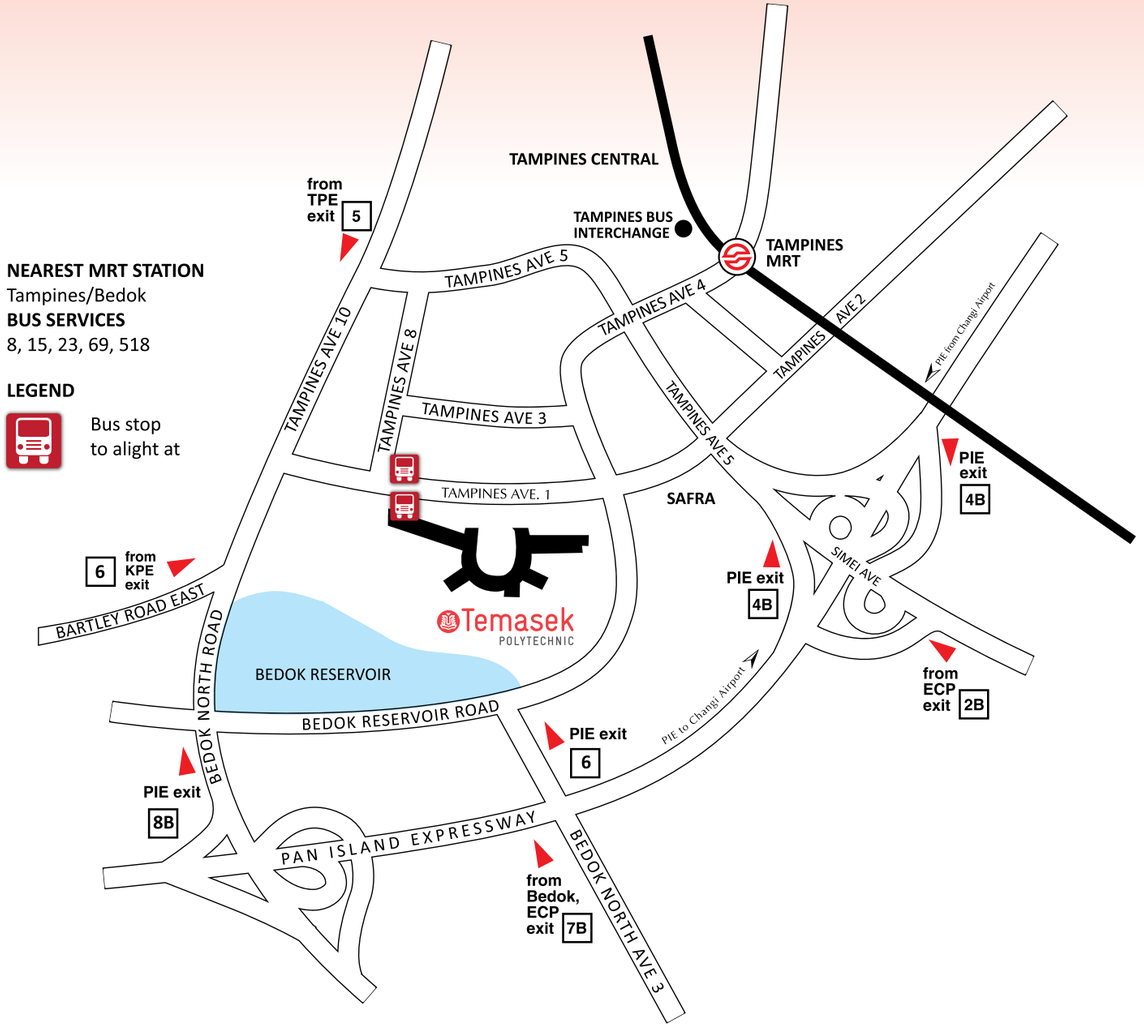
Academic Calendar AY2015/2016 Semester 1		
Term 1	**Mon, 20 Apr 2015 – Fri, 5 Jun 2015**	**7 weeks**
Term Break	Sat, 6 Jun 2015 – Sun, 21 Jun 2015	2 weeks
Term 2	**Mon, 22 Jun 2015 – Fri, 14 Aug 2015**	**8 weeks**
Study Week	Sat, 15 Aug 2015 – Sun, 23 Aug 2015	1 week
Semestral Examination	**Mon, 24 Aug 2015 – Fri, 4 Sep 2015**	**2 weeks**
Vacation	Sat, 5 Sep 2015 – Sun, 18 Oct 2015	6 weeks
Semester 2		
Term 3	**Mon, 19 Oct 2015 – Fri, 11 Dec 2015**	**8 weeks**
Term Break	Sat, 12 Dec 2015 – Sun, 3 Jan 2016	3 weeks
Term 4	**Mon, 4 Jan 2016 – Fri, 19 Feb 2016**	**7 weeks**
Study Week	Sat, 20 Feb 2016 – Sun, 28 Feb 2016	1 week
Semestral Examination	**Mon, 29 Feb 2016 – Fri, 11 Mar 2016**	**2 weeks**
Vacation	Sat, 12 Mar 2016 – Sun, 24 Apr 2016	6 weeks

Getting to TP

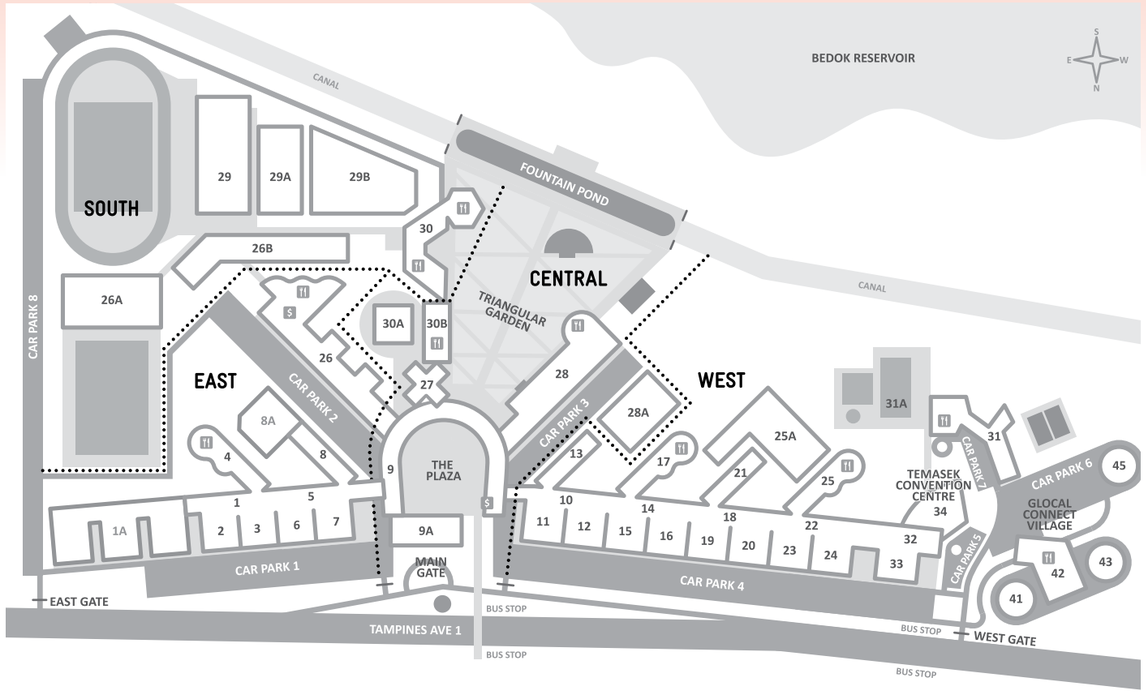
NEAREST MRT STATION
Tampines/Bedok
BUS SERVICES
8, 15, 23, 69, 518

LEGEND

Bus stop to alight at



Campus Map



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