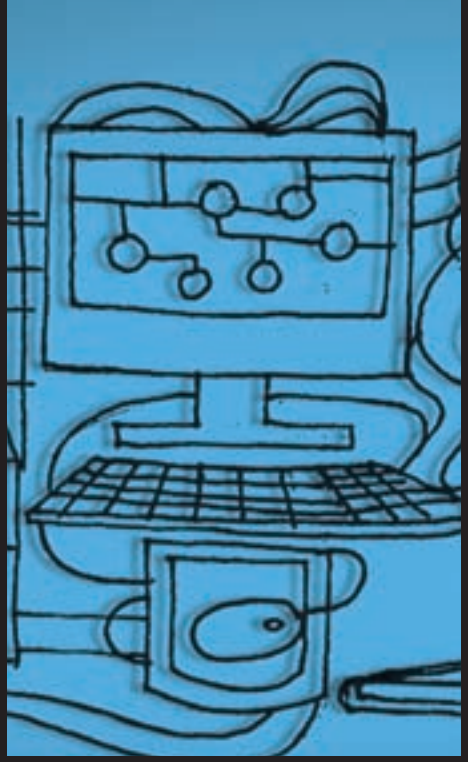
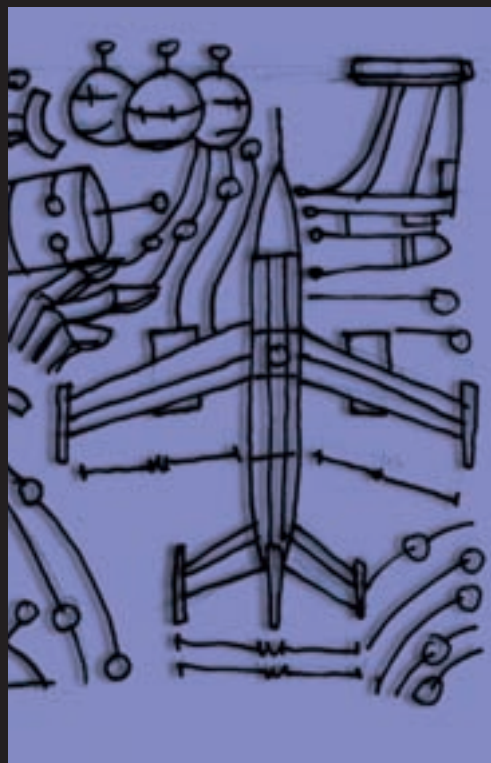
PROSPECTUS08-09

bringing education to life & life to education





TEMASEK POLYTECHNIC

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Principal & CEO's Message

As you ponder over your post-secondary education options and wonder how to go about choosing the best course of action, I trust that this prospectus will be a useful guide for you. I hope it can help you to identify an appropriate course that suits your aptitude, interest, career and life goals.

If there is one word that can characterise the Temasek Polytechnic brand of education, it would be "Relevance". Here at TP, we are committed to delivering an education that is economy relevant, future relavant and life relevant. The 45 courses we offer are designed to broaden your career options, and enhance your employability as well as prospects in further education. Our curriculum is up to date, facilities state-of-the-art and pedagogy, student-centred.

At TP, you will have ample opportunities to be engaged in activities beyond the classroom and often, beyond our national borders be it for study trips or community service. Importantly, as we seek to nurture your development, our team of caring lecturers is always there for their students, to be their teacher, mentor and friend.

All in, your TP experience promises to be exciting and enriching, and one that will prepare you for the challenges ahead.

I look forward to welcoming you as one of our very own in 2008.

BOO KHENG HUA
Principal & Chief Executive Of cer

Welcome to Temasek Polytechnic

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 1,200.

The are six academic schools at TP – Temasek Applied Science School, Temasek Business School, Temasek Design School, Temasek Engineering School, Temasek Humanities & Social Sciences School and Temasek Informatics & IT School. Together, they offer 45 market-driven full-time diploma courses in the respective disciplines. Always in tune with developments in industry, TP introduced two new courses in 2008. These are Psychology Studies and Interactive Media Technology. Psychology Studies is offered by the newly-established Temasek School of Humanities & Social Sciences, while the latter is offered by Temasek Engineering School.

The Polytechnic prides itself as an organisation that embraces excellence. In July 2001, TP achieved the Public Service Award for Organisational Excellence in recognition of its attainment of the ISO 9000 certi cation for full-time programmes, the People Developer Standard and the Singapore Quality Class. In October 2004, the award was renewed through dedicated and concerted efforts made to maintain TP's reputable standing of quality. In September 2005, TP continued in its quest for excellence and achieved a renewal of the Singapore Quality Class and the People Developer Standard. TP's ISO 9000 certi cation was also renewed in June 2006.

With its continuing quest for organisational excellence and industry relevance, commitment to providing a holistic programme to its students, and its dedication to effective teaching approaches, TP ensures that its students are well-prepared to face the challenges of the future.

Learning At TP

Learning in a polytechnic will mean a significant adjustment for many new students. At TP, you can be assured of a smooth transition to poly life as our staff have developed innovative educational approaches and systems that are designed to maximise the knowledge you gain, broaden your talents and skill sets, and develop your potential.

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, becomes 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.

FAST

All courses at TP come under the Flexible Academic System for Temasek, or 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 retake subjects that you have failed instead of repeating the entire year or semester of study. To give you a good foundation, some subjects include prerequisites and co-requisites that must be met before you are allowed to take the subjects. The Career & Course Advising Office at TP will provide you with academic advising to 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), ie, subjects beyond your diploma specialisation, as well as those that promote character building and a global perspective. The CDS are intended to ensure our students have a broad-based education when they graduate.

TP's six academic schools 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.

Character Education

The Temasek Humanities & Social Sciences School (HSS) also oversees the Centre for Character Education. This Centre, established in 1996, seeks to help you lead a more meaningful and effective life by helping you develop vital character traits and providing you with training in making ethical decisions. It achieves these objectives through customised programmes and CDS. Games and other experiential learning activities are often introduced in these programmes to facilitate learning and self-discovery in a fun and engaging way.

Entrepreneurship

TP believes that entrepreneurship is a mindset and discipline that must be embraced by both students and staff. In line with this, the Entrepreneurship Centre was set up in 2004. Across the polytechnic, entrepreneurial values are recognised, assimilated and developed in students. No matter which course of study or specialisation area you choose, you will be given the opportunity to develop your entrepreneurial talent. At TP, entrepreneurship goes beyond classroom learning where experience is gained through real life projects and interaction with industry.

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. 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-edge 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, with live concerts, sports competitions, community projects, camps, the annual arts festival, and much more.

Co-Curricular Activities

From sports to arts and leadership training, you will experience a whole range of co-curricular activities (CCAs) that will provide you with a well-rounded educational experience and contribute to your personal enrichment. With a broad range of student organisations including the Students' Union, clubs and interest groups on campus, you will have no trouble nding CCAs that will excite you and match your interests. With the Bedok Reservoir, adopted by TP under PUB's "Partner of Water" Programme next to the campus, you will also have a whole spread of water sports activities to choose from.

A Caring Campus

As a student, you will get to know caring lecturers who take their time to know their students well. You will even get your own Care Person, a lecturer dedicated to taking care of you and a group of friends throughout your three years here.

At TP, the Campus Care Network (CCN) has been developed to emphasise personal contact and rapport between lecturers and students, to create a family-like

environment, and to maintain a caring culture so as to ensure your personal growth.

The CCN Day carnival held on campus every year 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

You may visit the Student Wellness & Counselling Centre for advice on emotional, nancial, social, career and any other personal issues. Quali ed professional counsellors, trained in the areas of psychology and counselling, are there to offer a listening ear.

Besides counselling, the counsellors also conduct workshops such as stress management, effective communication and relaxation techniques to enhance the life-skills of students.

An e-Lifestyle

A campus-wide IT network harnesses the latest technology for teaching, learning and administrative support. TP has embarked on an initiative to realise Singapore's Public Service 21 (PS21) vision of service excellence through the delivery of "one-stop, non-stop" electronic services to students, staff, industry partners and the public. This initiative, known as ePoly, allows staff and students to have a personalised web space where almost every service and learning resource can be accessed from within and outside the campus.

Among the services available is a personalised timetable that can be accessed anywhere. You can also update your personal particulars, check your examination results and enrol for courses online. TP students are also able to read news and announcements, access information resources stored in TP's library, submit work assignments from home, study online, attend virtual tutorials and group discussions, and chat online with lecturers. These are all part of the growing e-lifestyle for you at TP.

Supporting Your Studies

To support your learning and personal development, the campus is fully-equipped with state-of-the-art facilities, an extensive library with digital resources, 61 lecture theatres, training laboratories and Centres of Excellence that simulate industry operations.

The Library and Information Resources

The 11-storey library houses an extensive collection of books, audio-visual titles, journals and magazines.

The library also comes with facilities such as Internet PCs, scanners, printers, reading carrels, as well as discussion and study rooms.

For those who need a hiatus from work, the library's Lifestyle oor provides the perfect hideaway. It offers regular arts performances at the Podium, and a wide range of leisure reading materials. Cable TV programmes are also available.

Students can also access the library 24/7. Through the Digital Library Portal, students can book study rooms and PCs, conduct online research, place reservations, renew library loans, watch videos, access databases and other e-resources, or seek assistance from friendly library staff.

Library staff are always at hand to help students with online tutorials. They also conduct workshops on research skills for students.

Resource Centre, Tourism Academy @ Sentosa

Students at the Tourism Academy @ Sentosa can visit the Resource Centre to access a niche collection of resources covering tourism, hospitality, culinary arts and resort management. The centre also offers print and electronic resources, Internet PCs and audio-visual facilities.

International Relations & Industry Services Department

The International Relations & Industry Services (IRIS) Department is TP's "eye" that scans, seeks and seizes opportunities for TP to connect it to the world, so as to achieve the 4G outcomes of:

- Inculcating a **G**lobal Mindset in our staff and students
- giving them an enriching **G**lobal Experience
- Forming **G**lobal Partnerships with industry
- Establishing a strong **G**lobal Branding for TP.

IRIS supports the enhancement of staff capability development, student learning experience and graduate employability through:

- Developing partnerships with industry through consultancy, joint R&D projects, student internships, job placements, etc.
- Promoting innovation and commercialisation
- Linking TP with the world through international technical transfer programmes and projects, staff/student exchanges, overseas student internships
- Recruiting quality international students and helping international students adapt and adjust to life in Singapore by meeting their holistic needs in three key areas, namely, emotional, social and practical needs. As recognition of the support and contribution to the well-being of its international students, Temasek Polytechnic was awarded the Singapore Tourism Board's "Best Host for International Students Studying in Singapore" in March 2007.
- Advising students on post-diploma education and career options.

Contact details:
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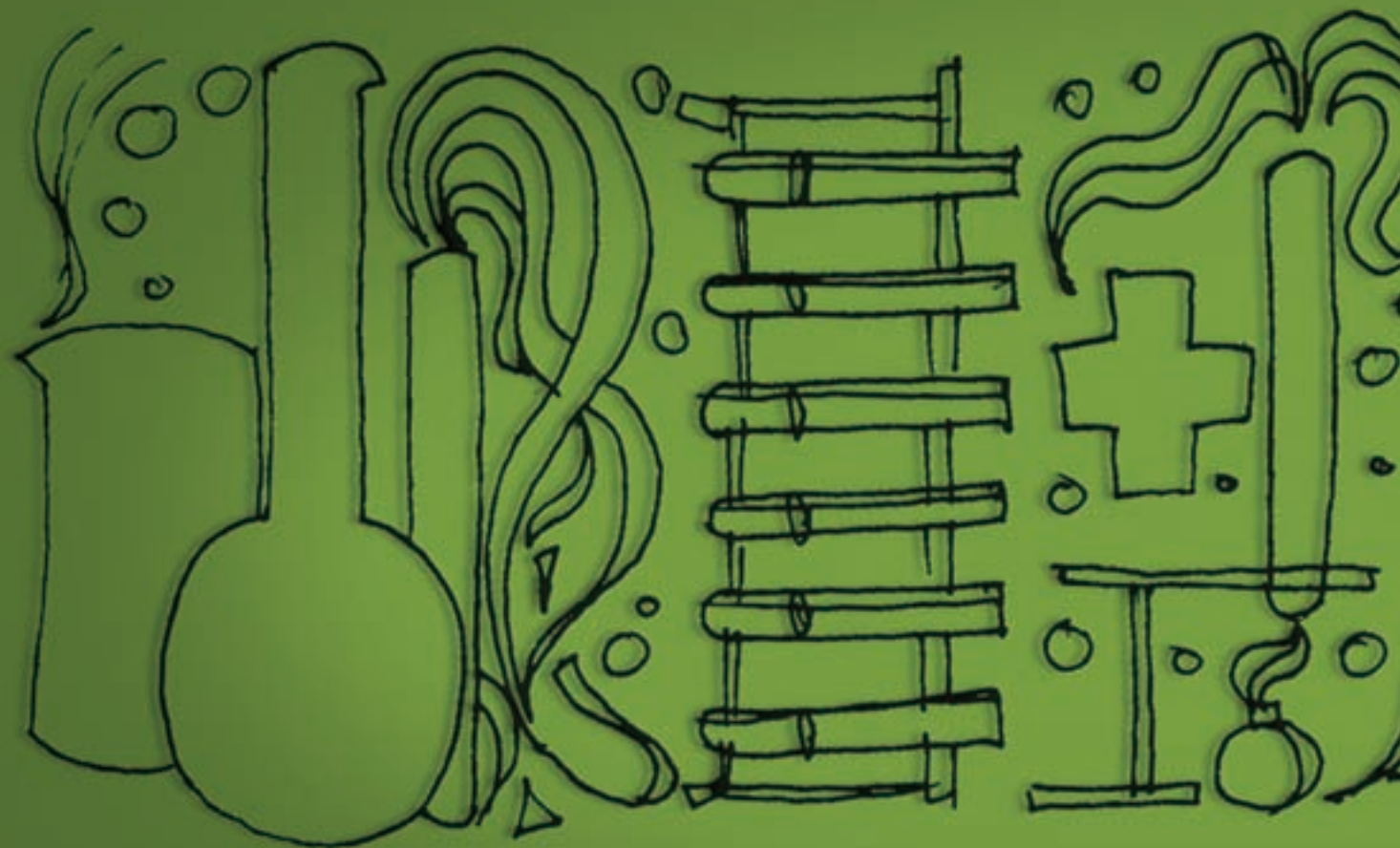
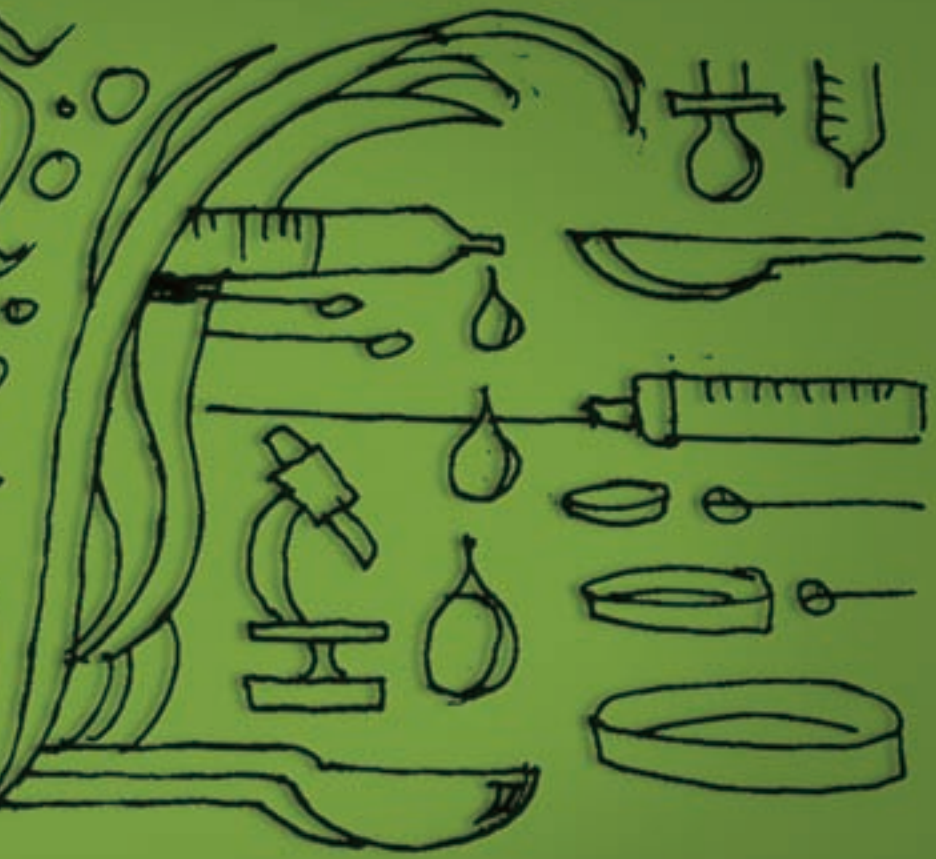
Temasek Applied Science School





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Temasek Applied Science 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, chemical and life sciences industries.

The School's 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. This is achieved through a variety of means, including Problem-based Learning (PBL), e-Learning, internship, project and research work.

Through PBL, you will develop critical thinking, interpersonal and problem-solving skills that are vital for success in the dynamic global economy. A strong emphasis on hands-on application means that you will get the opportunity to integrate and apply your knowledge and skills in a real work environment.

The School also keenly encourages participation in competitions and involvement in a spectrum of research projects. Core subjects such as Applied Principles for Effective Living, Communication Skills, and Cross-Disciplinary Subjects provide a holistic dimension to the curriculum. Additionally, the online delivery mode, in the form of interactive course materials and e-lectures, enables you to access online resources at your own pace and convenience.

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. Some of the areas of research or student projects are in Traditional Chinese Medicine, membrane technology, plant biotechnology, proteomics, nanotechnology, analytical services, environment and water technology, baking science and technology, hydroponics and nutrition assessment. 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

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 a Certi ed Class 10,000 lab, Bio-Safety Labs, Analytical Testing & Services Labs, Nutrition Counselling Room and various specialised research labs for Traditional Chinese Medicine, proteomics, fermentation and plant biotechnology.

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 both aquaculture and laboratory animal science and technology.

KoolWerkz Training Factory

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 elds. 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.

Membrane Technology Facility

This facility, housed in the Chemical Pilot Plant in the School, is well equipped to train students in membrane technology and embark on consultancy projects for our industrial partners. Major membrane equipment includes the NEWater pilot system and the nano ltration/ Reverse Osmosis (nF/RO) membrane skid.
The facility is also equipped with other conventional water and liquid waste treatment equipment such as jar test units, ion-exchange systems, lter press, activated carbon bed, etc.

Food Product Development Facility

This facility enables the formulation of products like drinks, spreads, baked products, desserts and sauces. It supports the School's frozen dessert capabilities by developing prototypes for our training factory. It also has a food pilot plant that scales up recipes for mass production. To complete the product development process, the School has a state-of-the-art sensory laboratory which has booths equipped with coloured lights, sinks and computer terminals.

Nutrition Assessment Facility

This facility comprises a counselling and observation room equipped with sophisticated facilities for focus group discussions and nutrition counselling sessions. It allows for anthropometric assessments like skinfold measurement and bioelectrical impedance analysis and dietary assessments to be conducted. This facility serves to provide a realistic training ground for students and has the capacity to undertake nutrition research projects.

Nanotechnology Research Facility

This facility is equipped with the basic equipment for the fabrication of inorganic nanoparticles and their surface modi cation for a variety of applications. It provides staff and students with the opportunity to be directly involved in the emerging eld of nanotechnology, ie, R&D at the atomic, molecular or macromolecular levels. It involves creating and using structures, devices and systems that have novel properties and functions due to their small sizes.

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, 2D gel analysis, two-dimensional high performance liquid chromatography, gel spot cutting/ processing and protein identi cation (via MALDI) so as to provide the capability to perform the main steps of a proteomics work ow. The facility also has the capabilities for molecular and biochemical analysis of the identi ed proteins.

Traditional Chinese Medicine 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. The facility 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 ow cytometer.

TP Herb Gardens

With a collection of more than 120 species of medicinal plants, the gardens are part of the School's comprehensive technical competency development in Traditional Chinese Medicine (TCM). It comprises an open concept garden and a specially designed nursery. It is a useful teaching tool for the identi cation and classi cation of plants commonly used in TCM.

TP Hydroponic Greenhouse

The greenhouse is equipped with several units of hydroponic orchid growth system, hydroponic growth system with chilled medium (both developed by the School), nutrient Film Technique growth system, Deep Flow Water Culture growth system and one unit of aeroponics. It also houses a workroom which permits arti cial light experiments, ion analysis and post harvest experimental work to be conducted. There is also a nutrient preparation room and a harvesting area.

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 speci c tissue culture laboratory skills, they are also exposed to the process and work ow in a real-life production environment. In this way, they can better appreciate the industrial applications of different laboratory techniques taught in class.

Applied Food Science & Nutrition

Food is the stuff of life, love and even war! Behind some of the favourite foods you eat, are people who created, prepared, studied and even preserved them in many ways to offer a vast array of food choices. Coke, Haagen Daaz and Ricola would not be around if it weren't for these army of food scientists, nutritionists, and product development technologists who make it happen!

Singaporeans' penchant for good and tasty food and the rise in diet-related diseases each year have made nutritional science an important growing industry. This course provides you with the scienti c knowledge and skills in food science and nutrition. You will receive practice-oriented training to enable you to gain the necessary competence to embark on a career in the food, nutrition and the healthcare industries. Electives are available from the fourth semester for you to specialise in nutrition or food science.

The nutrition subjects provide you with the knowledge and skills to understand diseases of dietary origin, assess the nutritional status of a community, educate the public on current nutrition topics and provide dietary advice. Food science subjects enable you to be part of the dynamic food industry that is constantly creating innovative, healthier and safer foods. Be equipped to meet the challenges of the marketplace through the application of new technology and the development of new or improved food products and processes.

The course also hones your entrepreneurial skills to help you embark on your own business ventures or take up challenges in sales and marketing of food and nutrition-related products and services.

> TP students are technically competent, quick to grasp concepts, meticulous and possess a positive and enthusiastic attitude. Our company managed to achieve much research during their internship with us.
>
> Dr Wang Mei Yin
> R&D Manager
> Compass Foods Pte Ltd

Career Opportunities

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

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

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

Any two other subjects, excluding CCA -

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

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

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 22 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 128 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Applied Food Science & Nutrition

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ACS3001	Communication Skills for Applied Science 4	3	2
ASI3005	Student Internship Programme	3	8

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
AFS2001	Food Ingredients	2	4
AFS2002	Food Preservation & Quality Assurance	2	5
AFS2003	Food Preservation & Quality Assurance Project	2	5
AFS2004	Applied Food Sanitation	2	4
ANT2001	Nutrition Across the Life Span	2	5
ANT2007	Catering Technology	2	4
AFS3001	Food Safety	3	4
AMP3001	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ANT2003	Community Nutrition	2	5
ANT2004	Principles of Biochemistry & Physiology for Nutrition	2	5
ANT2005	Food Service Management	2	5
ANT2006	Health & Wellness	2	4
AFS2005	Food Processing	2	4
AFS3003	Product Development & Marketing	3	5
AFS3004	Advanced Food Science	3	4
ANT3001	Nutrition in Disease	3	5
ANT3002	Applied Nutrition	3	4

Cross-Disciplinary Subjects

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

Baking & Culinary Science

Imagine hosting a party and your guests are waiting in anticipation for the food. When it arrives, you know your caterer has done it again by delivering a heavenly meal. This happened because the food was cooked with expertise and loving care and then served with precision. This course aims to produce such creative professionals trained in scientific culinary skills to make eating become an increasingly memorable experience for all of us.

The course focuses on cultivating baking and culinary skills to develop high quality products that are safe, nutritious and consistent in quality. You will undergo comprehensive and intensive hands-on training to make your learning a truly interactive experience through a curriculum that encompasses chemistry, microbiology, food safety, product development and baking/culinary technology. The integration of these diverse disciplines, complemented with a 10-week industrial attachment, will enhance your dynamic creative expression in international culinary presentations and equip you with a multitude of skill sets to create impact in food research and development.

If you love the intense creativity of baking and cooking and want to build an enviable culinary career, this course will prepare you to become a culinary professional in the rapidly growing food and beverage (F&B) industry. The course also hones your entrepreneurial skills to help you embark on your own business ventures or take up challenges in sales and marketing of food and nutrition-related products and services.

> This breed of students will contribute to the continual growth of the baking industry through innovative product development.
>
> Amir Poh
> Managing Director
> Blossoms Cake House Pte Ltd

Career Opportunities

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

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

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

Any two other subjects, excluding CCA -

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 97 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Baking & Culinary Science

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ACS3001	Communication Skills for Applied Science 4	3	2
ASI3004	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABC1001	Food & Culture	1	3
ABC1004	Principles of Design	1	3
ABC1005	Fundamental Culinary Skills	1	3
ACH1002	Organic & Biological Chemistry	1	5
AFS1001	Food Chemistry	1	5
AMA1005	Mathematics & Statistics	1	3
AMB1003	Basic Microbiology	1	5
ANT1001	Science in Food Preparation	1	4
ANT1002	Basic Nutrition & Food	1	4
ABC2005	Baking Science	2	5
ABC2006	Baking Practicum	2	7
ABC2007	Western Culinary Practicum	2	6
ABC2008	Asian Culinary Practicum	2	12
ABC2009	Principles of Food Service Management	2	4
AFS2001	Food Ingredients	2	4
ABC3003	Food Safety Management	3	6
ABC3004	Baking & Culinary Technology Application	3	5
ABC3005	Product Development in Food Service	3	5
AMP3004	Major Project	3	8

Cross-Disciplinary Subjects

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

Biomedical Science

Serve mankind! Save lives! Do your part for the Singapore healthcare system while contributing to the nation's goal to be Asia's biomedical hub and the region's medical hub. Play a role in the research and development of novel diagnostics and therapeutics. You never know, you may just find yourself commercialising discoveries at the laboratory benches and making headlines in patient care.

Singapore has emerged as the springboard to Asia in many areas of our economy and may well be the next global hub for biomedical sciences. The local biomedical sciences sector is growing with increasing foreign investment that boosts job opportunities in testing laboratories, clinical trials, research and development and pharmaceutical 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 pharmaceutical care services. This course puts you in demand!

Our course emphasises learning through established collaborative training and work attachments with experienced teaching staff and industry professionals. You begin by learning the foundational sciences to understand the biology and chemistry of health science. You will study the inner workings of living cells, the biological processes involving proteins and enzymes, the structure, parts and functions of the human body, the world of bacteria, viruses and other microorganisms, and the structure, functions and chemical reactions of molecules. You will progress to learn the nature, causes and progression of human diseases, our biological responses and defences, and chemical drug actions, effects and uses.

You can then choose to specialise in one of two options. The Biomedical Technology (BMT) option trains you in laboratory science and technology in clinical diagnostics, as well as clinical research. The Pharmaceutical Science and Technology (PST) option equips you with knowledge and skills in pharmaceutical drug development as well as pharmacy retail and care services.

> We were impressed with the enthusiasm, commitment and positive attitude of TP's intern. The cGMP 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

Career Opportunities

Graduates from the BMT option can work as medical technologists or laboratory technologists in hospital/clinical laboratories, medical research centres, central testing laboratories at Contract Research Organisations and clinical trials.

Graduates from the PST option can work as pharmacy technicians assisting pharmacists at hospitals or community/ retail pharmacies; QA/QC analysts or process technologists in pharmaceutical or bio-pharmaceutical manufacturing industries; research technologists; executives for regulatory affairs involving pharmaceutical and related legislations; or technical sales and marketing personnel for pharmaceutical/health products.

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

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

Any two other subjects, excluding CCA -

Applicants with partial or complete Colour Appreciation Deficiency are not eligible to opt for the Biomedical Technology option.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

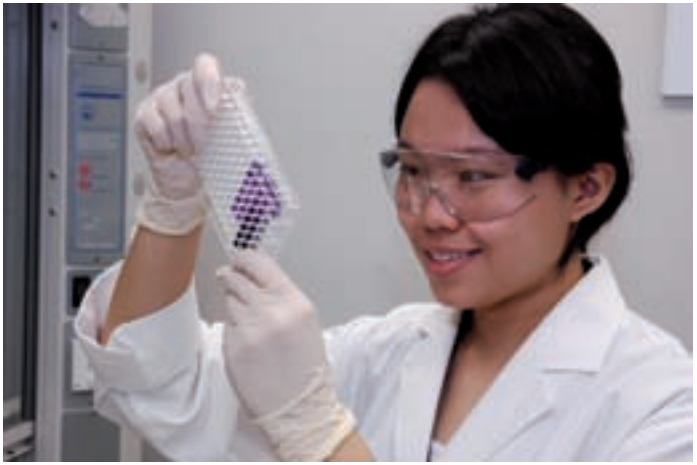
Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 54 credit units
Elective Subjects	: min 8 credit units
Option Subjects	: 37 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Biomedical Science

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'.



Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ACS3001	Communication Skills for Applied Science 4	3	2
ASI3003	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1001	Biochemistry 1	1	4
ABM1002	Human Physiology & Immunology	1	4
ABT1001	Cell Biology	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
APH2006	Basic Pharmacology	2	4
AMP3004	Major Project	3	8

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Biomedical Technology Option			
ABM2007	Clinical Chemistry	2	5
ABM2008	Histological Techniques	2	3
ABM2010	Applied Immunology	2	3
ABM2011	Haematology	2	4
ABT2005	Molecular Biology	2	5
ABT2007	Molecular Genetics	2	5
AMB2004	Medical Microbiology	2	4
ABM3001	Blood Banking	3	4
ABM3004	Laboratory Management & Quality Assurance	3	4

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Pharmaceutical Science & Technology Option			
ACH1004	Organic Chemistry 2	1	4
ACE2006	Pharmaceutical Unit Operations	2	5
ACH2004	Principles of Instrumental Analysis	2	4
AMB2003	Pharmaceutical Microbiology	2	4
APH2004	Pharmaceutical Legislation & Marketing	2	4
APH2005	Introduction to Pharmacotherapeutics	2	4
APH3002	Current Good Manufacturing Practices	3	3
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3007	Pharmaceutical Analysis	3	5

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACH1006	Principles of Inorganic & Physical Chemistry 2	1	5
BRM1002	Principles of Retail Management	1	4
ABT2001	Biochemistry 2	2	4
ABT2008	Mammalian Cell Technology	2	4
ACE2009	Occupational Safety & Health	2	4
ACE2010	Process Control & Instrumentation	2	5
APH2002	Pharmaceutical Chemistry	2	4
BRM2006	Store Management	2	4
ABM3003	Drug Development & Clinical Trials	3	5
APH3005	Bioprocess Technology	3	5
APH3006	Good Dispensing Practice & Pharmacotherapy	3	5
BMK3007	Principles of Entrepreneurship	3	4
BMK3012	Sales Management	3	4

Cross-Disciplinary Subjects

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

Biotechnology

Have you ever wondered if wounds could heal without scarring? Or thought about how close we are to turning stem cells into brain cells to save stroke patients? Recent advances in biotechnology are spearheading advances that will impact on medicine and therapeutic treatment and even food production. You too can be involved in this emerging field that is set to bring huge benefits to mankind.

As the government pushes to make Singapore the regional biomedical science hub, research technologists are increasingly more in demand in both basic and translational research. This is especially so with the growing incidence of old-age related diseases and new emerging diseases in the region.

In your first year, this course will focus on establishing a solid foundation in the basic biology and chemistry of life sciences. In the next two years, you will undergo a well-integrated sequence of modules on cell and molecular biotechnology. A hands-on approach forms the core basis of training, as you receive exposure to a repertoire of research skills in the areas of laboratory animal science and technology, genomics, proteomics, plant biotechnology, immunology and other key supporting technology essential for biomedical and scientific research.

As part of the holistic training provided, you will be given opportunities to cultivate an independent and inquiring mind, as well as learn the process skills. In order to further hone your technical skills, you will undergo a five-month attachment either locally or overseas in the biotechnology and biomedical industries. There will also be research opportunities with experienced staff researchers in the form of enrichment activities at the Temasek Applied Science School Research Centre.

> The practical training in this course well prepares TP students for the industry. TP graduates are quick to pick up new skills, show interest in their work and are adaptable to new challenges that confront them in their research work.
>
> Dr Naweed Naqui
> Principal Investigator
> Temasek Life Sciences Laboratories

Career Opportunities

You will be able to find employment as a research technologist/assistant involved in cell and molecular biotechnology research at research centres, healthcare specialty centres, and biotechnology companies. 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 work as technical support officers can also work in aquaculture, agrotechnology parks and farms. Your broad training will also enable you to work as a sales and marketing executive for life sciences instruments and products.

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

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

Any two other subjects, excluding CCA	-

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

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

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Biotechnology

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’.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ACS3001	Communication Skills for Applied Science 4	3	2
ASI3003	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1001	Biochemistry 1	1	4
ABM1002	Human Physiology & Immunology	1	4
ABT1001	Cell Biology	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
ABM2010	Applied Immunology	2	3
ABT2001	Biochemistry 2	2	4
ABT2005	Molecular Biology	2	5
ABT2006	Analytical Biochemistry	2	5
ABT2007	Molecular Genetics	2	5
ABT2008	Mammalian Cell Technology	2	4
ABT2009	Plant Cell Technology	2	5
AMB2001	Applied Microbiology	2	5
ABT3001	Recombinant Technology & Bioinformatics	3	5
ABT3010	Laboratory Animal Science & Technology	3	4
AMP3004	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM3003	Drug Development & Clinical Trials	3	5
ABT3002	Tissue Engineering	3	4
ABT3011	Animal Health & Diseases 2	3	4
APH2006	Basic Pharmacology	3	4
APH3005	Bioprocess Technology	3	5

Cross-Disciplinary Subjects

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

Chemical Engineering

Singapore is home to oil refinery and pharmaceutical giants, as well as major manufacturers of petrochemicals and specialty chemicals. Hyflux, a local water treatment company, has spread its wings and built many plants in Asia. These diverse companies, with annual outputs worth billions of dollars, have one thing in common – they rely on chemical engineers to determine the pulse of the industry.

Chemical engineering is the bridge that channels products that are developed in laboratories to the hands of the masses. 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 bene ts of scienti c discoveries. They hold crucial responsibilities in the process industry such as running plant operations, designing reactors and process equipments, improving ef ciency as well as looking into the safety and environmental aspects of processes.

This course trains you to have an extensive grounding in chemistry and chemical engineering principles for the chemical process industries. Moreover, specialised modules like Pharmaceutical Manufacturing Technology and Bioprocess Technology are offered to equip you with the relevant knowledge to join the pharmaceutical manufacturing industry. Practical knowledge of process safety and laboratory techniques, as required by the relevant industries, are also taught. You can also take part in state-of-the-art research projects related to nanotechnology, fermentation and membrane technology.

The extensive scope of this course will prepare you for higher education well. The University of New South Wales, University College of London and many top overseas universities offer advanced standing to our graduates. Locally, you can apply for admission to the National University of Singapore, Nanyang Technological University and Singapore Management University to pursue a degree.

> Our researchers in organic synthesis lab were impressed with the Chemical Engineering students. They are diligent, trustworthy, possess good organisational and communication skills. Being self-motivated, they completed their assignments with high quality consistently, despite deadline pressures. They have shown their ability to work in a team and demonstrated leadership abilities.
>
> Xiao Yang
> Senior Research Officer
> Institute of Materials Research and Engineering

Career Opportunities

Trained to be versatile, you can work in a broad range of companies in various industries. You can embark on careers in the chemical industry, the second largest manufacturing industry in Singapore. You can also conduct analytical or research work in laboratories or consider prospects in the pharmaceutical manufacturing companies running the production of pharmaceutical products. You may also embark on a career in technical sales or purchasing.

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

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

Any two other subjects, excluding CCA	-

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 93 credit units
Elective Subjects	: min 7 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 128 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Chemical 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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ACS3001	Communication Skills for Applied Science 4	3	2
ASI3002	Student Internship Programme	3	8

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
ACE3004	Plant Safety & Loss Prevention	3	4
ACE3010	Materials & Nanotechnology	3	4
AMP3004	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACE2003	Industrial Chemical Processes	2	4
ACE3005	Membrane Separation	3	3
ACE3006	Petrochemical Technology	3	4
ACH3003	Applications of Instrumental Analysis	3	5
AEW3001	Industrial Utilities	3	3
AEW3002	Industrial Wastewater Treatment	3	4
AEW3003	Environmental Management System	3	3
AMA3001	Engineering Mathematics 3	3	4
APH3002	Current Good Manufacturing Practices	3	3
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3005	Bioprocess Technology	3	5

Cross-Disciplinary Subjects

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

Consumer Science & Technology

Learn to manage the food we eat, the money we spend and the clothes we wear. Teach the young to value a healthy lifestyle, stretch the dollar, fashion a confident person and create a happy family. This noble contribution will build the future of Singapore.

With Singapore fast becoming an education hub, a career in teaching will give you a bright future. If you have a passion for food, science, fabric and design, consumer needs and wants, a zest for learning and an interest in nurturing students to reach their potential, you have what it takes to become a Home Economics teacher.

This course is one of two diploma programmes offered under the Ministry of Education's four-year Home Economics Teacher Training Scheme. Students embarking on this course are equipped with technical skills and scienti c knowledge of nutrition, food preparation, food science, textiles, sewing and consumer education to manage the content of Home Economics in secondary schools. Graduating from TP, you will proceed to the National Institute of Education to pursue the diploma course in Education (Home Economics) that trains you in effective pedagogy.

The course incorporates various approaches that develop not only technical knowledge and skills but also life skills such as teamwork, communication, time and con ict management and skills in preparation for the realities of working life. The compulsory internship helps you to experience Home Economics teachers' work in secondary schools. At TP, you will go through a exible learning structure where core subjects are taken together with the Adventure Learning Programme, overseas community projects and cross-disciplinary subjects. This exibility develops talents and grooms holistic individuals ready to take on the challenges of a changing Singapore education landscape.

> During the ten-week attachment, the intern from your course worked proficiently and independently and was a great asset to the Home Economics Department. She carried out her duties with enthusiasm and displayed a great sense of responsibility. With her commitment and passion, I have no doubt that she has what it takes to be a good teacher.
>
> Lim Chek Quay
> Home Economics Subject Co-ordinator
> Temasek Secondary School

<u>Career Opportunities</u>

Graduates with both diplomas will serve as Home Economics teachers in secondary schools.

Minimum Entry Requirements

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

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

Any two other subjects, excluding CCA	Grades 1-6

Applicants who do not meet the Science requirement but with Food & Nutrition/Human & Social Biology may apply. Applications are to be made online directly to MOE at the following website: http://www.moe.gov.sg/teach/Apply.htm.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 17 credit units
Diploma Core Subjects	: 101 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Consumer Science & Technology

Application: Application to this course is administered at the same time as the Joint Admissions Exercise conducted after the release of the GCE O Level results. Applications are to be made online directly to MOE at the following website: http://www.moe.gov.sg/teach/Apply.htm. Applications must be submitted to MOE within one week of the release of the GCE O Level results.

Sponsorship: Students admitted into this course will be fully sponsored by MOE. This sponsorship includes course fees as well as a monthly bursary during the first three years. In the fourth year, each student will be appointed to the Education Service as an untrained teacher drawing a salary. In return, students will serve a five-year bond with MOE.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ASI2001	Student Internship Programme	2	8

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
DAD1134	Lifestyle Sewing 1	1	4
DAS1106	Textile Fundamentals	1	4
DAS1107	Apparel Design Fundamentals	1	3
AFS2001	Food Ingredients	2	4
AFS2002	Food Preservation & Quality Assurance	2	5
AFS2003	Food Preservation & Quality Assurance Project	2	5
ANT2001	Nutrition Across the Life Span	2	5
ANT2003	Community Nutrition	2	5
ANT2004	Principles of Biochemistry & Physiology for Nutrition	2	5
DAD2135	Lifestyle Sewing 2	2	4
AHE3001	Advanced Food Preparation	3	4
AHE3003	Consumer Resource Management	3	5
ANT3001	Nutrition in Disease	3	5
DAD3137	Decorative Construction	3	4

Cross-Disciplinary Subjects

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

Veterinary Technology

Singapore's affluence as a society has seen to an increase in pet ownership and correspondingly, an increased activity in the pet trade. Animals are also used as models in research and pre-clinical trials in our pursuit to find cures for human diseases. All these make their responsible and humane care and use very important and in turn, veterinary and animal technologists have become much sought-after professionals.

There are at least 44,000 dogs adopted as pets in Singapore and the number is said to be increasing. With the growing number of animals sold as pets locally, the number of veterinary clinics has gone up over the years. With this and the increasing use of animals as research models in the biomedical R&D industry, the demand for quality trained technologists with a responsible attitude is de nitely there.

This course focuses on establishing a good grounding in the basic and applied sciences essential for meeting the needs of the veterinary and biomedical research industries. The practice-oriented programme provides hands-on training with particular emphasis in the care and use of laboratory animals for scienti c purposes other than veterinary diagnostics, pain and wound management, anaesthetic and surgical procedures as well as general animal care and management. Training in cell and molecular biotechnology in preparation for biomedical research is also emphasised in this course. Technical competency is further honed through a ve month industry attachment either locally or overseas in the veterinary industry, research institutions or animal parks. Cross-disciplinary modules focusing on entrepreneurship, innovation, problem-solving and business fundamentals are also available as part of the holistic training programme.

> The biomedical, pharmaceutical and agricultural industries are growth industries which will need more veterinary technologists to service their expanding businesses. Government-related agencies such as the AVA, research institutes and the Biopolis also have a good demand for veterinary technologists.
>
> Dr Ngiam Tong Tau
> President
> Singapore Veterinary Association

Career Opportunities

Our graduates can work in either biomedical research or veterinary industries. You may be employed as a veterinary technologist in veterinary clinic/hospitals, or as an animal education of cer/assistant, animal health inspection assistant or technical support of cers in animal welfare organisations, Agri-Food and Veterinary Authority of Singapore, animal quarantine centres and pet shops. You may also work as an animal technologist in animal facilities at research/tertiary institutions or pre-clinical trial centres. You could also be a sales and marketing executive in pet feed or accessory companies and companies promoting veterinary/scienti c equipment.

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

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

Any two other subjects, excluding CCA	-

Applicants with complete Colour Appreciation Deficiency are not eligible to apply.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 99 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Veterinary Technology

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACS1001	Communication Skills for Applied Science 1	1	2
ACS1002	Communication Skills for Applied Science 2	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
ACS2001	Communication Skills for Applied Science 3	2	2
ACS3001	Communication Skills for Applied Science 4	3	2
ASI3003	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1002	Human Physiology & Immunology	1	4
ABT1001	Cell Biology	1	4
ACH1002	Organic & Biological Chemistry	1	5
ACH1005	Principles of Inorganic & Physical Chemistry 1	1	5
AMA1005	Mathematics & Statistics	1	3
AMB1002	Human Anatomy & Physiology	1	5
AMB1003	Basic Microbiology	1	5
ABM2009	Fundamentals of Pathology	2	4
ABM2010	Applied Immunology	2	3
ABT2001	Biochemistry 2	2	4
ABT2007	Molecular Genetics	2	5
ABT2010	Animal Anatomy & Physiology	2	5
ABT2013	Molecular Biology	2	4
AVT2001	Clinical Diagnostics 1	2	5
AVT2002	Clinical Diagnostics 2	2	4
AVT2003	Laboratory Safety & Management	2	2
AVT2004	Veterinary Practice Management	2	2
AVT2005	Animal Care & Management	2	5
APH2006	Basic Pharmacology	3	4
ABT3009	Surgical & Anaesthetic Principles	3	4
ABT3010	Laboratory Animal Science & Technology	3	4
AVT3001	Animal Health & Diseases	3	5
AMP3004	Major Project	3	8

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 aims to equip 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 would be relevant to other subjects in the course.

ABC1004 Principles of Design
This subject will provide you with a basic understanding of line, shape, texture, balance, colour, scale and contrast, and the principles of two-and three-dimensional design. You will learn the language of describing plate presentations.

ABC1005 Fundamental Culinary Skills
This subject introduces you to the fundamental skills of food preparation such as sautéing, broiling, poaching, simmering, pan-frying, and deep fat frying. Knife skills, vegetables cutting, and operation of equipment will also be covered. You will also explore the fundamentals of ingredient applications in various recipes/cuisines.

ABC2005 Baking Science
This subject covers the fundamentals of baking science. You will investigate the various types of our derived from milling, the tests used to evaluate the quality of our, the functions of common and special ingredients used in baking, and baker's mathematics. Processing methods for breads, cakes and pastries will also be covered.

ABC2006 Baking Practicum
This subject aims to develop a repertoire of baking skills with emphasis on the preparation of lean dough and sweet dough products, cakes and pastries with the use of commercial baking equipment. You will also apply various dough/batter processing methods in the preparation of the products. Knowledge of equipment selection and safety in the bakery will be emphasised.

ABC2007 Western Culinary Practicum
This subject aims to provide practice in the preparation, presentation, and evaluation of common dishes from various European regions with focus on French and Italian dishes. You will apply culinary skills in kitchen practicals which include stocks, sauces, soups, salads, fruits/vegetables, grains, eggs, poultry, red meat, and seafood. Knowledge of equipment selection and kitchen safety will be emphasised.

ABC2008 Asian Culinary 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 Asian dishes. You will apply culinary skills in kitchen practicals which include stocks, sauces, soups, salads, fruits/vegetables, grains, eggs, poultry, red meat, and seafood. Knowledge of equipment selection and kitchen safety will be emphasised.

ABC2009 Principles of Food Service Management
This subject focuses on the management strategy in food service to enable you to pro ciently supervise a foodservice operation. It provides the technical and operational knowledge in facilities planning and design, menu planning, purchasing, receiving and storage of food, and their applications in various food establishments. Production planning, quantity food production, food inventory control, human resource and nancial management will also be covered.

ABC3003 Food Safety Management
This subject focuses on the food safety aspects associated with food service operations. It covers the potential sources of food hazards, food microbiology, cleaning and sanitizing, hygienic aspects of food premises design; personal hygiene, pest control, hygienic food handling, food storage, standard operating procedures as well as Hazard Analysis and Critical Control Point (HACCP) in the food service environment.

ABC3004 Baking & Culinary Technology Application
This subject is designed to equip 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.

ABC3005 Product Development in Food Service
This subject provides you with 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.

ABM1001 Biochemistry 1
This subject investigates the properties of carbohydrates, lipids and proteins, and their signi cance 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.

ABM1002 Human Physiology & Immunology
This subject covers the knowledge of human physiology and basic immunology. It introduces common terms, concepts, fundamental procedures and applications used in both physiology and immunology.

ABM2007 Clinical Chemistry
This subject focuses on providing an understanding of pathophysiological changes in disease and applying these concepts in clinical chemistry for diagnosis, prognosis, monitoring and screening of disease. You will then be able to link the purpose and limitations of speci c laboratory tests to the theoretical knowledge and understanding of clinical chemistry. It also provides you with the basic skills and understanding in laboratory tests carried out in the clinical chemistry laboratory.

ABM2008 Histological Techniques
This subject covers the basic knowledge, principles and skills of histotechnology. Topics include xation, decalci cation, tissue processing, microtomy, frozen sections, staining and 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.

ABM2010 Applied Immunology
This subject covers the immunopathology and immunological techniques used in screening, diagnosis and monitoring of diseases. It also deals with the way in which our immune system is manipulated for prevention and treatment of diseases through immunisation, immune suppression and immune modulation.

ABM2011 Haematology
This subject equips you with the theoretical foundation and practical skills in haematology. Topics covered include the structure and function of red blood cells and haemoglobin, development of blood cells, haematology procedures, laboratory investigations of anaemia, haemoglobinopathies, thalassaemia, haemostasis, blood parasites and haematopoietic stem cell disorders.

ABM3001 Blood Banking
This subject provides you with the basic knowledge of blood banking and covers the theoretical, practical and clinical aspects of blood transfusion. Emphasis is given on the application of immunologic principles as applied to blood grouping, tissue typing and compatibility testing. It also stresses the importance of laboratory quality control and clinical considerations in transfusion practices.

ABM3003 Drug Development & Clinical Trials
This subject introduces you to a comprehensive overview of drug development and clinical trials. It covers different approaches to drug design and development such as computer-aided drug design and combinatorial chemistry. Different stages of a clinical trial and the role of good clinical practices will also be covered. It also provides useful examples of good clinical practice in trials and promotes the quality and safety of testing procedures.

ABM3004 Laboratory Management & Quality Assurance
This subject focuses on the laboratory management and quality assurance applicable in clinical laboratories. The content will cover laboratory automation, statistical methods and safety regulations practised in all clinical laboratories. The role of different quality programmes involved in monitoring of quality assurance standards will also be included.

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.

ABT2001 Biochemistry 2
This subject focuses on the principles of Biochemistry by building on concepts learnt from Organic Chemistry I and Biochemistry I. 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.

ABT2005 Molecular Biology
This subject provides you with the basic theoretical and practical knowledge of Molecular Biology. Topics include molecular biology techniques, gene regulation in eukaryotes and prokaryotes, eukaryotic viruses, molecular carcinogenesis and an introduction to genetic engineering.

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

ABT2008 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.

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.

ABT2010 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. There is also a basic introduction to zoology as seen from the veterinary perspective.

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 and prokaryotes, eukaryotic viruses, molecular carcinogenesis. This subject brings together the principles of cell biology, biochemistry, molecular genetics and microbiology so that you will be able to understand how molecular events affect life process.

ABT3001 Recombinant Technology & Bioinformatics
This subject covers both the theory and practical techniques of bioinformatics and molecular biotechnology. It will include studies on the applications, potential, present and future trends of molecular and protein technology.

ABT3002 Tissue Engineering
This subject covers the principles and methods of tissue engineering that combine knowledge in life sciences and engineering to enhance the fundamental understanding of structural-functional relationships in normal and pathological mammalian tissue. The development of biological substitutes that restore, maintain or improve tissue function will also be discussed.

ABT3009 Surgical & Anaesthetic Principles
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.

ABT3010 Laboratory Animal Science & Technology
This subject covers the care and use of common laboratory animals for research as well as operations and maintenance of animal facilities, animal biosafety levels, animal research models, disease prevention and occupational health and safety.

ABT3011 Animal Health & Diseases 2
This subject introduces you to the diagnostic techniques and their applications with respect to animal diseases that are of signi cance to veterinary and laboratory animal science.

ACE1001 Mass & Energy Balance
This subject examines the scienti c 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 scienti c principles and techniques which are the basic laws of chemical engineering thermodynamics. Further studies into the rst and second law of thermodynamics, energy analysis, gibbs free energy, phase equilibrium and chemical reaction equilibrium will also be included.

ACE2002 Environmental Technology
This subject provides you with the basic scienti c 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, ltration and drying. It will also cover the various fractionation processes and mechanical operations including solids handling, sieving, milling and comminution. Commonly used equipment in pharmaceutical manufacturing will also be introduced.

ACE2007 Unit Operations 1
This subject is a development from basic engineering principles and covers both newtonian and nonnewtonian ows, basic equations, uid ow in pipes and ttings as well as uidisation and ltration. It also covers the principles and operations of pumps, compressors and their performances. Practicals will be included to enhance understanding.

ACE2008 Unit Operations 2
This subject investigates the fundamental scienti c principles and techniques in chemical engineering. Selected unit operations which involve diffusion and gas-liquid mass transfer (absorption and humidi cation), gas-liquid mass transfer (batch and continuous distillation) and liquid-liquid mass transfer (extraction) will be discussed.

ACE2009 Occupational Safety & Health
This subject covers health issues and safety at the workplace. The section on health will examine the causes of occupational diseases and their respective controls (heat stress/strain, ventilation, noise and industrial lighting). The section on safety will explore topics like machinery safety, electrical safety, hazards of re 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 will be 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 will also be covered.

ACE3002 Chemical Reaction Engineering
This subject examines the scienti c 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- ow reactors and plug- ow reactors will be carried out. Differences in the behaviour o deal and non-ideal reactors will also be 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 con gurations, membrane fouling and control, and advanced membrane processes such as diffusion dialysis, electrodialysis and continuous deionization, 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 and Nanotechnology
This subject provides you with key concepts of materials technology and their relevance to the chemical process industry. You will also be exposed to various groups of nanomaterials, their properties and potential applications. Topics include basic concepts of materials property, types of materials, materials corrosion and prevention, and nanotechnology.

ACH1002 Organic & Biological Chemistry
This subject provides you with the basic concepts in organic chemistry as well as the constituents of biological systems and their properties and signi cance to biological science. Topics covered will include organic chemistry, proteins and enzymes, carbohydrates and lipids.

ACH1003 Organic Chemistry 1
This subject provides you with the basic concepts in organic chemistry which correlate the structure of organic molecules with their properties of the functional groups. Topics covered are classi cation 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 you with 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 you with 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 you with 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 you with 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 you with 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.

ACS1001 Communication Skills for Applied Science 1
This subject introduces you to the fundamentals of interpersonal skills that will equip you to work effectively in a team. It covers the basic principles of writing laboratory reports to prepare you for technical writing in the context of the Applied Science courses.

ACS1002 Communication Skills for Applied Science 2
This subject hones your public speaking skills and provides you with opportunities for hands-on experiences in the delivery of successful oral presentations. It also trains you to read to organise information.

ACS2001 Communication Skills for Applied Science 3
This subject equips you with skills in academic project report writing for the Applied Science courses. It also covers research methodology necessary for applying information in the context of these courses.

ACS3001 Communication Skills for Applied Science 4
This subject equips you with job application skills, such as writing effective cover letters and resumes to secure job interviews. The Interview Skills component provides you with tips for successful job interviews and culminates in your performance at mock interviews. Written communication skills in the context of the Applied Science workplace will also be covered.

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 classi cation of industrial wastewaters and the strategies for wastewater treatment to meet trade ef uent 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.

AFS1001 Food Chemistry
This subject covers the four major components in food, namely water, fats and oil, carbohydrates and proteins. You will investigate the physical and functional properties of these components in food. Chemical reactions of these components in food systems will be covered extensively.

AFS2001 Food Ingredients
This subject introduces you to the main ingredients/additives commonly used in food manufacture. These include emulsi ers, stabilizers, sweeteners, avourings, colourings, acidulants, bulking agents, chelating agents and leavening agents. Food regulations on the use of additives will also be covered.

AFS2002 Food Preservation & Quality Assurance
This subject is an integration of three areas: food quality control, food preservation and food microbiology. You will learn to apply basic concepts of food preservation and quality assurance to produce quality products that focus on the microbiological, chemical and physical aspects. These will ensure food quality and safety for compliance with prescribed standards and legislations.

AFS2003 Food Preservation & Quality Assurance Project
This is a project-based subject integrating the three areas: food quality control, food preservation and food microbiology. You will learn to apply the concept of hurdle technology to quality control and food product safety so as to meet legal and company requirements.

AFS2004 Applied Food Sanitation
This subject examines the potential sources of food contamination and its prevention. Other topics include cleaning and sanitising chemicals, systems and procedures, water sanitation, food waste product disposal, hygienic aspects of food premises design and equipment, personal hygiene pest control, hygienic food handling and food storage.

AFS2005 Food Processing
This subject covers the processing conditions and equipment of selected foods that are produced commercially. Food categories include bakery products, dairy products, fruits and juices. Elements of food packaging and process control will also be introduced.

AFS3001 Food Safety
This subject presents the chemical and microbial risks associated with the production and consumption of food. You will be informed of a range of issues related to genetically modi ed foods, nutraceuticals, foodborne illnesses, consumer concerns and management of food safety by the industry and government.

AFS3003 Product Development & Marketing
This subject provides you with the technical skills for developing a new food product. Applications of knowledge in nutrition, food chemistry, food legislation, quality control, microbiology, food ingredients and labelling will be demonstrated through product development projects. The effects of food preparation, food processing, packaging and marketing on food product development will also be illustrated.

AFS3004 Advanced Food Science
This subject covers specialised topics such as rheology of foods, sensory evaluation of food products, experimental design and statistical analysis.

AHE3001 Advanced Food Preparation
This subject integrates your knowledge and skills in food science and nutrition with food preparation. It is approached from the Healthy Diet Pyramid perspective and emphasises food preparation and food investigation skills that are in line with the new science-based Home Economics (Food & Nutrition) syllabus in secondary schools. You will learn how to select and prepare nutritious, appealing and balanced meals with an understanding of the science involved in food preparation.

AHE3003 Consumer Resource Management
This subject illustrates the basic concepts and principles of consumer resource management and family life management. The principles of economics on consumption and the power of advertising and its in uences on consumer behaviour will be emphasised. The subject will incorporate decision-making skills for effective purchase decisions and creates an awareness of the tactics and strategies used by sellers. It will also cultivate appropriate negotiation skills and skills for seeking consumer redress.

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 will cover investigations into basic statistics, sampling distribution, hypothesis testing and analysis of variances. The section on mechanics will include 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 will 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 will be 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 aims to provide you with the necessary statistical skills to deal with application problems in the Applied Sciences context. The focus of this subject would be on probability and statistics, measures of central tendency, events and probabilities, and probability distributions. This subject would also cover some basic calculus.

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.

AMA3001 Engineering Mathematics 3
This subject enhances your understanding of advanced mathematical concepts. You will learn to apply these concepts to solve problems related to Chemical Engineering. This subject will also provide you with adequate grounding for further tertiary education. Topics include types of Laplace transform, numerical methods, vectors and complex numbers.

AMB1002 Human Anatomy & Physiology
This subject aims to provide 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 importance of basic microbiology and its relevance to the food and biotechnology industries. Topics covered include the microbial world, procaryotes and eucaryotes, cultivation and growth of microorganisms, nutritional requirements and microbiological media and control of microorganisms.

AMB2001 Applied Microbiology
This subject has a theoretical and practical focus that allows you to apply your knowledge acquired in Basic Microbiology to the elds of food, industry, medicine and environment.

AMB2003 Pharmaceutical Microbiology
This subject covers the signi cance of micro-organisms in the pharmaceutical industry, principles and applications of antimicrobial agents and various sterilisation methods. It includes laboratory skills/tests to ensure product quality and safety. The principles and practice of quality assurance, good manufacturing practice and good laboratory practice will be emphasised.

AMB2004 Medical Microbiology
Medical microbiology is the study of the characteristics and behaviour of microbial agents that cause infectious diseases in humans. Also within its scope is the application of the above knowledge for the diagnosis as well as prevention and control of these diseases.

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 classi cation of microorganisms, laboratory microbial techniques and microbial nutrition.

AMP3001 Major Project
This subject provides a framework for you to solve practical problems or formulate products through a self-managed project. The scope of the subject includes project proposal, investigative studies, analysis, interpretation of results, written report and presentation.

AMP3004 Major Project
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.

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 in food preparation. The subject also integrates the science of cooking with the selection, storage, purchase and preparation of fresh and processed foods available today. Throughout the subject, careful attention will be given to the preservation of major nutrients and the palatability of prepared food. Learning experience will be built from basic demonstration of key principles to their practical applications.

ANT1002 Basic Nutrition & Food
This subject aims to provide you with a basic understanding of human nutrition and dietary practices. Lectures will be supplemented by tutorial activities and practicum. Topics include an introduction to nutrition and food, carbohydrates, lipids, proteins, energy balance, vitamins, minerals, water, food and its nutritive value and recent advances in nutrition.

ANT2001 Nutrition Across the Life Span
This subject covers the nutritional requirements of man during his entire life span. Topics include nutrition in pregnancy and lactation, nutrition for the growing years, adults and elderly.

ANT2003 Community Nutrition
This subject provides you with an understanding of the importance of disease prevention and health promotion in a community. It covers the steps involved in the planning and delivery of a nutrition programme. The methods used to assess the nutritional status of a population and the types of nutrition education for the community will also be discussed. Basic knowledge in the behavioural change model, related to programme design and the delivery of nutrition messages to the public, will be included.

ANT2004 Principles of Biochemistry & Physiology for Nutrition
This subject provides you with the knowledge of biochemistry and human physiology in relation to nutrition. The content of this subject will build on the knowledge acquired in level one subjects such as Human Anatomy & Physiology and Basic Nutrition & Food. Topics include transport across cell membrane, introduction to metabolism, carbohydrate and alcohol metabolism, electron transport chain and oxidative phosphorylation, the fundamentals of immunology.

ANT2005 Food Service Management
This subject focuses on the management strategies in foodservice to enable you to supervise a foodservice operation. It equips you with the technical knowledge and operational know how in production planning, food inventory control, customer service skills, human resource and nancial management and total quality management. Various management information system software will also be incorporated.

ANT2006 Health & Wellness
This subject focuses on the various public health concerns, risk factors and the prevention of these health problems. Knowledge associated with physical activities and other lifestyle factors will be included to provide you with a holistic view of health and wellness. You will also learn the skills required in the implementation and evaluation of health promotion programmes.

ANT2007 Catering Technology
This subject provides you with the technical knowledge in menu planning, operation of equipment, purchasing, receiving and storage of food and their application on catering systems. Quantity food production and quality control will also be covered.

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 apply the knowledge of food and nutrition sciences in the management of these diet-related disorders.

ANT3002 Applied Nutrition
This subject focuses on the theory and skills required for counselling and communication in the healthcare industry. You will undertake exercises to develop your skills in counselling and communication. You will also learn the basic concepts and principles of research methodology and survey techniques. Knowledge associated with statistical analysis will be included to inculcate a critical disposition towards reading health statistics.

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 the Poisons Act, the Misuse of Drugs Act, the Medicine Act, the Sale of Drugs Act, the SAPI code of marketing practice and legal status of Traditional Chinese Medicine. It will also provide you with an understanding of basic marketing concepts, tools and techniques pertaining to the commercialisation of pharmaceutical products.

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 and pharmacology of classes of drugs.

APH3002 Current Good Manufacturing Practices

This subject provides you with 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.

APH3004 Pharmaceutical Manufacturing Technology

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

APH3005 Bioprocess Technology

This subject provides you with 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 nished 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 provides you with knowledge and applications of pharmacopeial analytical methods emphasising on the US and British Pharmacopoeias. It provides further knowledge on analytical instruments like gas chromatography, high performance liquid chromatography and FTIR and their applications in the analysis of pharmaceuticals. Also covered are physical analysis techniques such as disintegration, dissolution and particle size analysis. Data analysis, instrument validation, method validation, and test method modi cation and development will be taught in relevance to manufacturing, process optimisation and current Good Manufacturing Practice.

ASI2001 Student Internship Programme (Consumer Science & Technology)

This programme will help orient and integrate you into the working world. It also provides you with the opportunity to put theory into practice and enhances your ability to develop and organise the different aspects of a Home Economics teacher's role in a secondary school.

ASI3002 Student Internship Programme (Chemical Engineering)

This programme involves a compulsory 16-week 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.

ASI3003 Student Internship Programme (Biomedical Science/ Biotechnology/Veterinary Technology)

You will be attached to related life sciences industries for a period of 20 weeks during which you are expected to undertake various activities assigned by

the participating host organisations. The programme helps you to prepare for the working world and enables you to apply knowledge and skills to solve practical problems. Emphasis will be placed on the development of skills such as teamwork as well as written and oral communication skills.

ASI3004 Student Internship Programme (Baking & Culinary Science)
This programme encompasses a compulsory 10-week attachment to bakeries, food service and food-related companies. It exposes students to industrial/market practices in the working environment.

ASI3005 Student Internship Programme (Applied Food Science & Nutrition)
This programme involves a compulsory 16-week attachment at a food, catering or health-related company which exposes you to real-life situations. It will help orient and integrate you into the working world.

AVT2001 Clinical Diagnostics 1
This subject covers biological sample collection and processing for skin scraping, faecal analysis, urinalysis, microbiology assays, radiology, histology and cytology.

AVT2002 Clinical Diagnostics 2
This subject covers clinical chemistry and hematology in relation to veterinary applications. You will learn about processes and principles used to evaluate pancreatic and liver functions, kidney function and electrolytes in veterinary medicine. You will also learn about veterinary hematology and would have hands-on in preparing blood smears and staining.

AVT2003 Laboratory Safety & Management
This subject aims to raise your knowledge and practice of biological, chemical and physical safety in a laboratory setting. You will learn about risk assessments and risk controls as well as the importance of proper training and documentation. Other topics include laboratory management such as proper record keeping, equipment maintenance, lab waste management and ISO-related issues.

AVT2004 Veterinary Practice Management
Provides the fundamentals on good dispensing practice, simple patient counselling skills, record keeping and veterinary reception.

AVT2005 Animal Care & Management
This subject covers an introduction to the care and management of animals (young and ageing) in general, and of speci c animals, in the areas of housing, environmental factors, nutrition, reproduction, breed identi cation, rst aid and wound management and animal behaviour. Animals covered would include birds, sh, rodents, dogs, cats, equine and some exotic animals. Dental prophylaxis will also be covered.

AVT3001 Animal Health & Diseases
This subject covers an introduction to animal diseases of signi cance to veterinary and laboratory technicians. The subject will introduce you to pathogenic agents and their life cycles (parasites), their modes of action, and the observed symptoms. Zoonotic diseases will also be covered.

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 will help to develop your entrepreneurial mindset.

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 eld 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 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 of sales management.

BRM1002 Principles of Retail Management
This subject introduces the basic principles and concepts in the eld of retailing with particular emphasis on topics ranging from an introduction basic to 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 you to the basic principles of store management with particular emphasis on topics ranging from introduction to store management, human resource management to operational management.

DAD1134 Lifestyle Sewing 1
This subject introduces the basics of operating the sewing machine. Basic sewing techniques will be taught to make lifestyle items such as bags, hair accessories, cushion covers and tablecloths etc. Lessons are specially designed for you to have fun while discovering the functions of the sewing machine.

DAD2135 Lifestyle Sewing 2
This subject introduces you to the various creative approaches to sewing such as cross-stitching. You will incorporate various sewing methods in your projects which range from designing and making bolsters to fashion doll clothing.

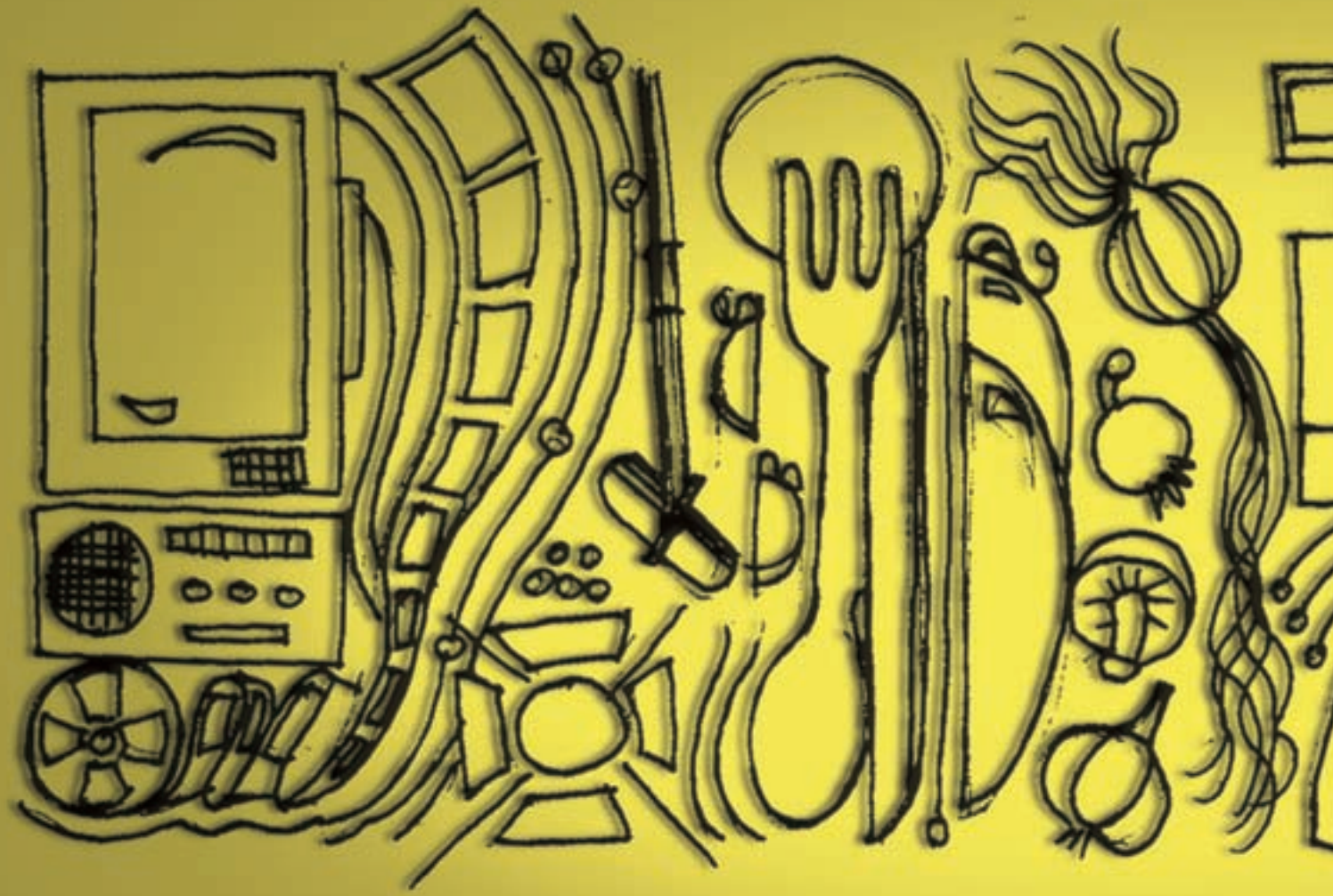
DAD3137 Decorative Construction
This subject introduces the basic skills involved in the surface decoration of textiles for clothing, furnishing, wall hanging and accessories. Various fabric manipulation techniques will be taught through hands-on demonstrations. You will be encouraged to carry out your ideas through intermediate design work and nd personal ways of designing on fabrics so that a rich and stimulating base will be established in an integrated approach during the design development process.

DAS1106 Textile Fundamentals
This subject gives a basic understanding of bres 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 identi cation and their intrinsic characteristics. Your understanding of textiles will encompass production processes, practices and new developments in the industry.

DAS1107 Apparel Design Fundamentals
The subject explores the three basic elements of design line, colour and texture - and the design principles speci c to apparel and accessory items. It will examine their effects on personal appearances as well as their in uences on changes in fashion trends in the apparel industry.

GCD1001/1002/1003 Applied Principles for Effective Living (APEL)
Applied Principles for Effective Living is TP's Core Programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extropersonal Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (ie, attitudes, skills, knowledge) towards the Principles for Effective Living, hence laying the vital foundation for their life-long success. The principles introduced in this programme are largely derived from applied psychological studies.

Temasek Business School



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Temasek Business School's programmes are designed to address both your career and academic aspirations. We offer 11 courses that prepare you for careers in various areas of contemporary business. Our curricula tap on continual input from eminent industry experts and academic professionals, and equip you with up-to-date knowledge and life skills.

Our professional staff, with their extensive industry experience, will help you obtain both theoretical knowledge and practical experience. Lectures, tutorials and group facilitation are complemented by hands-on practice at various specialised facilities like training laboratories and studios.

The School provides training and learning opportunities for budding entrepreneurs to develop skills in starting and managing new businesses. Our graduates are also imbued with a keen sense of entrepreneurship as students get to participate in many industry projects and competitions – both local and international.

Under the Student Internship Programme, you will undergo a period of internship with companies to gain first-hand work experience and apply the knowledge and skills that you have acquired. Selected students may get the opportunity to go overseas for their attachments.

The School has developed its "Virtual Business School" or VBUS, where e-learning is used to complement and support classroom learning. Computers linked to the Internet are available to enrich your learning journey. With all digital course instructional materials and interactive media accessible on the Internet, you can learn at home; and if you are on campus, you can learn on-the-go, using mobile computing devices such as notebooks, tablet PCs, PDAs and smart mobile phones. You can also communicate with your lecturers or classmates through VBUS readily and easily.

While there is a strong emphasis on imparting knowledge, the courses also equip you with important life skills. Through Problem-based Learning, you will be trained to adapt to changing conditions and to anticipate future opportunities while being innovative and resourceful. In the process, you hone your problem solving, creative thinking, presentation, and communication skills, which are all important in the workplace.

Centres Of Excellence

Temasek Business School rmly 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.

Accounting & Finance Reuters Lab

Students can explore the exciting nancial markets and a real trading environment with online share prices, interest rates, bond, currency and derivative prices worldwide using Reuters. Information and news from diverse sources can be gleaned from Factiva, a state-of-the-art research tool widely used in the nance industry. A computerised accounting software, ACCPAC for Windows, is also on hand for the accounts enthusiasts.

Simultaneous Interpretation for Meetings (SIM) Lab

The SIM Lab is used for training in simultaneous interpretation. Equipped with four simultaneous interpretation booths and other supporting facilities, this classroom simulates international conferences that require simultaneous interpretation services.

Kelly Services Career Centre

The centre operates as a branch of a global staf ng corporation, Kelly Services (a Fortune 500 company and listed on Nasdaq). It gives students hands-on training in international recruiting and staf ng practices.

Television Studio

This 200-m^2 studio is fully-equipped with the latest in broadcast technology equipment that allows students to learn how to produce television programmes and news bulletins. It is also equipped with state-of-the-art post-production facilities for online and of ine editing.

Centre for Logistics & Operations Management

This centre houses laboratories that simulate the entire supply chain. It includes a warehouse management system, operations management subsystem and transport and distribution subsystem. It is also equipped with logistics simulation games that teach the concepts used in logistics and operations management.

The Brand Hub

Understanding the world of branding is a key competitive advantage for our marketing graduates. The Brand Hub 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.

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.

Focus Group Room

This is a multi-purpose marketing research training room. Fully-equipped as a real commercial focus group room, it allows observation of group discussions and sales presentations.

E-Business Centre

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.

The Communication Hub

The Communication Hub is specially designed to support communication learning. It is well-equipped with facilities to help students experience various aspects of corporate communication work, especially in the areas of corporate journalism and publications, media relations and news dissemination. Facilities include digital cameras and desktop publishing equipment. The layout of the Hub is also specially designed for Problem-based Learning discussions.

Silicon Studios

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. Wireless access to the network is also possible in the Silicon Studios.

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, Asian and Western kitchens, and a garde manger (cold kitchen). These training facilities will allow students to hone their skills in food preparation and serve as a 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.

LegaLab

The lab offers students training and practice in a wide range of software as well as electronic ling and information retrieval systems used in the courts and the legal profession.

Travel Planners at Temasek Polytechnic

Travel Planners is a collaborative venture between TP and Safe2Travel Pte Ltd that provides a real-life travel agency within the campus. This agency exposes students to the diverse and critical roles they will play in the travel business, and equips them with the required operational and managerial skills that will enhance the development of a customer-centric working attitude.

Newsroom & Publishing Room

These facilities replicate the real print-journalism environment. The newsroom represents the front-end of the news production process involving reporters and editors, while the Publishing Room involves the back-end subediting process where page layout is done. Journalism students use the facilities to produce a regular student newspaper and gain valuable hands-on experience working in a newsroom set-up.

ILaw Chambers

The ILaw Chambers is a simulated law of ce training facility set up with the intention of exposing nal-year students to the full work ow involved in running a legal matter. It is used to train students in the day to day running of a typical law rm, 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 production suites. Students also "broadcast" live on campus from the on-air radio studio.

Accounting & Finance

With the government's commitment to promote Singapore as a financial centre and wealth management hub, the demand for finance professionals will undoubtedly continue to increase. The emphasis on corporate governance also fuels the need for qualified accountants.

The dual specialisation in both accounting and nance offers you wide career and further study options. Our broad-based training aims to instil con dence and equip you with both technical and soft skills for the dynamic accounting and nance sectors. How do we achieve this? Through an industry-relevant curriculum, current teaching methods, and opportunities to develop problem-solving, teamwork and communication skills.

You will learn through hands-on activities such as industry projects and investment games. You will also be exposed to accounting software, real-time nancial databases and state-of-the-art research tools widely used in the industry.

Furthermore, you will be able to choose your preferred accounting or nance specialisation and take cross-disciplinary subjects to pursue interests beyond your diploma.

In the rst year, your focus is on building a foundation in business disciplines such as accounting, economics, management, statistics and information technology.

The second and nal years build on industry knowledge and skills through subjects such as Business and International Finance, Management Accounting, Taxation, Corporate Reporting, Audit, Investment and Personal Financial Planning. In the nal year, you will select electives from a range of accounting and nance subjects.

> Temasek Polytechnic 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

Your knowledge and skills will also be put into practice in the industry through a 12-week Student Internship Programme.

Career Opportunities

An exciting range of career opportunities awaits you in the areas of accounting, audit, taxation, nance, banking, investment, insurance, stock-broking and wealth management. You could be employed as of cers in banks, or stock-broking rms, nancial planning consultants, research assistants, assistant nancial analysts, securities traders, accounts assistants, auditors in public accounting rms, compliance/internal auditors and tax of cers.

Many of our graduates pursue further studies. They are considered by local universities for admission into their accountancy and business programmes and enjoy credit transfers to many overseas universities in Australia, United Kingdom and New Zealand. Professional institutions, such as the ACCA, also grant exemptions to our graduates in their examinations.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts

** SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

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 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Accounting & Finance

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BSI3001	Student Internship Programme	3	8

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
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
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	Partnership & Company Accounts	2	4
BLM2005	Legal Aspects of Business	2	4
BAF3008	Financial Analysis	3	4
BAF3010	Fundamentals of Taxation	3	4
BAF3013	Personal Financial Planning	3	4
BAF3018	Corporate Reporting & Audit	3	4
BLM3009	Company Law for Business	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BAF3003	Bank Treasury Management	3	4
BAF3006	Consumer Banking	3	4
BAF3007	Credit Administration & Control	3	4
BAF3009	Financial Institutions & Markets	3	4
BAF3014	Practice of Taxation	3	4
BAF3016	Security Analysis & Portfolio Management	3	4
BAF3019	Advanced Accounting	3	4
BAF3020	Audit Practice	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 subjects in your first two semesters and to discover your personal strengths, aptitude, interests and career aspirations. During this time, you can explore career opportunities and course requirements for the three diplomas before opting for one course.

Curriculum for Freshman Year

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

- Principles of Management
- Communication Skills 1
- Business Accounting 1
- Business Accounting 2
- Applied Principles for Effective Living 1 (APEL 1)
- Organisational Behaviour
- Microeconomics
- Macroeconomics
- Computer Systems & Applications
- Marketing Fundamentals
- Business Statistics

Course Option for Junior Year and Senior Year

At the end of your Freshman 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 be streamed into the respective courses from your third semester of study. Please see the sections on the respective courses in the following pages for more information.

Business

This course will give you broad-based business education in management, international business, 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 here, you will be challenged with real-life business problems and assignments. Through the Problem-based Learning pedagogy adopted by Temasek Business School, you will develop critical thinking, problem-solving, analytical, teamwork and communication skills. Hands-on learning opportunities are available through Kelly Services Career Centre (TP branch), The Communication Hub, 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. In summary, you will receive a holistic business education when you graduate from Temasek Polytechnic.

The diploma 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 specialise in two business areas out of seven business elective clusters: Banking, Finance & Investment, Corporate Communication, Human Resource Management, Entrepreneurship, Marketing, and Tourism & Leisure Business. You can take non-business Cross-Disciplinary Subjects that interest you.

> Graduates from Temasek Business School are ready for the modern day work environment where the situation is fast-moving and fluid. Kelly Services Career Centre in Temasek Polytechnic gives students of this course an opportunity for hands-on business experience in the human resource and staffing industry.
>
> Dhirendra Shantilal
> Vice President and Managing Director, Asia Pacific
> Kelly Services (Singapore) Pte Ltd

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, corporations and organisations. 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 employment positions in a range of industries in the public or private sectors. You can take on jobs in business, banking, nance and investment, human resource management, corporate communication, marketing, tourism and leisure business, 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 foreign universities.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts

** SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

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

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Business

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BSI3002	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
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
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
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
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
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
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
Marketing Elective Cluster			
BMK2001	Advertising & Promotion	2	4
BMK2002	Consumer Behaviour	2	4
BMK2003	Customer Relationship Management	2	4
BMK3012	Sales Management	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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.

Business Information Technology

Singapore's Intelligent Nation 2015 master plan seeks to fuel economic growth through the innovative use of technology and targets to create as many as 80,000 additional jobs and value-add S$26 billion to the infocomm industry within the next 10 years. Riding high on this exciting growth are graduates with the right mix of business and IT skills.

If you believe you have the potential, there is every opportunity for acquiring the necessary skills to contribute to Singapore's success and your personal development. Jointly offered by Temasek Business School and Temasek Information Technology School, this course opens the doors for students who envision themselves to be the catalyst of business growth through the use of IT.

You will learn concepts applicable across all business domains 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 nancials and supply chains.

In your Senior year, you have a choice to further specialise in areas such as enterprise resource planning, business intelligence, shared services and outsourcing, and business strategies for high-tech companies. Information systems security and audit is also a signi cant feature in your training.

The course stresses on 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.

> SAP is proud to partner TP in incorporating our Enterprise Resource Planning System into this course. SAP is the world's leading business software solution provider. By learning the integrated business processes and best practices in the SAP system, students will gain practical e-business knowledge and later apply these principles when they join the workforce.
>
> Erin MacDonald
> Managing Director
> SAP Singapore and Malaysia

Career Opportunities

You will be adept at business and IT as well as bridging the gap between the two. Graduates from the course have found careers in domains of business as well as IT; ranging from banking, nancials, trading, logistics and manufacturing. Armed with both business acumen as well as a technological mindset, you can start your career as a business analyst, ERP/CRM analyst, pre-sales analyst, project coordinator, account executive, marketing executive, customer service of cer and more.

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

** SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

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

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Business Information Technology

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	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
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
BBT1005	Computer Technology & Of ce Systems	1	5
BBT1006	E-Business Management	1	4
CID1C02	Web Design	1	4
CFI1C04	System Analysis	1	4
CIM1Z01	Database Information Systems	1	5
BBT2002	Open Technology & Business Systems	2	5
BBT2003	Data Mining	2	4
BBT2004	Enterprise Resource Management	2	4
BMK2009	Principles of Marketing	2	4
BBT3005	Business Information System Security & Audit	3	4
BMP3003	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BAF2016	Management Accounting & Finance	2	4
BLM2007	Legal Aspects of IT	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 mass 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 contribute meaningfully in your chosen fields. You could also explore a career in other media-related businesses such as public relations, corporate communications and entertainment.

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 print 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 CNBC, MediaCorp and Singapore Press Holdings. In the second semester, you will choose one of three specialisation options – Print, Broadcast or Media Marketing.

> The Sunday Times has seen a couple of interns from this course and I must say they have been impressive. After a while, they usually prove that they are good enough to be assigned stories that are intended for the main paper and not just help out senior reporters with the legwork. Their bylines can be seen in The Sunday Times weekly during their period of attachment.
>
> Mathew Pereira
> News Editor
> The Sunday Times

Career Opportunities

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

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

Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

Any two other subjects, excluding CCA	Grades 1-6

** SPM/UEC holders must have a minimum grade of 3 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 27 credit units
Diploma Subjects	
Core Subjects	: 63 credit units
Elective Subjects	: min 8 credit units
Option Subjects	: min 16 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 123 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Communications & Media Management

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCM1008	Persuasive Communication	1	4
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BCM2005	Cross Cultural Communication	2	4
BSI3004	Student Internship Programme	3	16

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCM1001	Communications & Media Marketing	1	4
BCM1002	Graphic Design Fundamentals	1	5
BCM1003	Essential Graphic Software	1	4
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
BMK1001	Basics of Entrepreneurship	1	1
BCM2001	Basic Media Research	2	4
BCM2007	Introduction to Audio Production	2	5
BCM2008	Multi-Camera Studio Production	2	5
BCM2009	Multi-Media & Electronic Publishing	2	4
BCM2010	Radio Studio Production	2	5
BCM2011	Single Camera Production	2	5

Diploma Subjects - Option Subjects (student to choose one option)

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Option 1: Journalism & Publishing			
BCM3001	Advanced Journalism	3	4
BCM3005	Internet Journalism	3	4
BCM3006	Magazine Editing	3	4
BLM3015	Intellectual Property, Media Law & Ethics	3	4
Option 2: Media & Marketing Management			
BCM3002	Advanced Media & Marketing Management	3	4
BCM3007	Promotions & Campaigns	3	4
BCM3009	Web Design & Management	3	4
BLM3015	Intellectual Property, Media Law & Ethics	3	4
Option 3: Broadcasting			
BCM3003	Advanced Television Production	3	4
BCM3004	Broadcast Journalism	3	4
BCM3008	Scriptwriting	3	4
BLM3015	Intellectual Property, Media Law & Ethics	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCM2002	Basic Sub-editing	2	4
BCM2003	Broadcast Performance	2	4
BCM2004	Chinese Newswriting	2	4
BCM2006	Film Theory & Criticism	2	4
BCM2012	Social Psychology/Sociology	2	4
BCM2013	Sports Media Marketing	2	4
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.

Culinary & Catering Management

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 appreciation of the complex and integrated processes found in catering establishments. There are ample opportunities to allow your passion for the culinary arts to ourish, your creative voice to be heard and your commitment to providing great food and wine to be translated into operating and managing a restaurant.

You will learn about food product knowledge, 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.

The course stretches your creative and critical thinking skills in decision making and problem solving which are required in supervisory and executive or managerial positions.

Together with our award winning chefs and through our partnership with the Culinary Institute of America, you will be trained by the best in the culinary world.

> A solid foundation in culinary arts and science is essential for young entrants into the wonderful and creative world of the food and beverage industry. An established hospitality institution like TP offering this course would be most appropriate for these young talents. The skills and knowledge gained would certainly enhance the creativity, talent and professionalism of the food and beverage industry.
>
> Eric Teo
> President
> Singapore Chefs Association

Career Opportunities

Graduates from this course would have undergone broad-based training, making them highly versatile. Having been groomed for junior executive positions, you can choose to work in virtually any sector dealing with food and beverage. These career opportunities can occur in service areas such as in hotel and independent restaurants and cafes, catering companies and other food and beverage-related enterprises, or in the supply area such as in food and beverage distribution.

Graduates also have the option to further their 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.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/Communication English or English Language (for UEC holders)*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 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 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Culinary & Catering Management

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BSI3009	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	2	20
BHT2008	Business Etiquette & Service Excellence	2	4
BHT2014	Principles of Marketing for Hospitality & Tourism	2	4
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

Cross-Disciplinary Subjects

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

Hospitality & Tourism Management

The hospitality and tourism industries hold the key to an exciting and dynamic future driven by people and technology. The Singapore Tourism Board estimates that 10,000 jobs will be available in these industries in 2009, painting a bright future for our students.

This course develops hospitality and tourism-related knowledge and core skills underpinned by a solid grounding in key aspects of business management. Going beyond textbooks, it incorporates the latest innovations in both the tourism and hospitality industries by including real-life learning opportunities with industry partners in the curriculum.

A comprehensive overview of the industry is provided through a thematically organised curriculum revolving round key sectors of the industry: travel business, destination planning and development, service skills management, lodging business (for example, hotels and service apartments), meetings, incentives, conventions and exhibitions, event management, club, resort and spa business.

Learning comes alive in the course through your active engagement in hands-on projects and practical training sessions at our training restaurant. Your learning journey culminates in a 20-week attachment to a company which you will be guided to select.

Throughout the course, your ability to learn will develop through teaching and learning approaches that encourage creative thinking and problem-solving skills, and through the execution of industry-based projects and assignments. Life skills are also given prominence through subjects such as Business Etiquette and Service Excellence, in which you will learn how to interact with others in a business setting, and study the ner points of global citizenship and cross-cultural communication skills.

> Singapore's tourism industry is set to become more vibrant and exciting with major transformational projects such as the Singapore Flyer, the two Integrated Resorts and Formula One Singapore Grand Prix, coming on stream. These projects will enhance Singapore's appeal as a destination and accelerate our growth in the years ahead. To support and drive the growth of Singapore's tourism industry, we need a competent and professional workforce. The comprehensive curriculum of this course will equip students with the relevant skills and knowledge required by the tourism sector. With the diverse and rewarding tourism careers available, students can look forward to contributing, shaping and moulding the future of the tourism sector.
>
> Lim Neo Chian
> Deputy Chairman and Chief Executive
> Singapore Tourism Board

Career Opportunities

Having been groomed for junior executive positions, you can choose to work in virtually any service sector. Many of our graduates nd employment with the civil service, hotels, clubs, resorts, airlines, tour operators, museums, national tourism organisations, as well as businesses dealing with food services, events management, entertainment promotion, 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.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 6 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Hospitality & Tourism Management

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BSI3009	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
BCC1002	Fundamentals of Food & Beverage	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BHT1014	Travel & Tour Operations	1	3
BLO1004	Research for Hospitality & Tourism	1	4
BMK1001	Basics of Entrepreneurship	1	1
BAF2001	Accounting for Hospitality & Tourism	2	4
BAF2009	Management Accounting & Finance 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
BHT2016	Club, Resort & Spa Business	2	4
BHT2018	Geography of Travel & Tourism	2	2
BHT2019	Travel Transport Business	2	2
BCC3004	Operations & Management of Food & Beverage	3	4
BHT3006	Destination Planning & Development	3	4
BHT3008	Meetings, Incentives, Conventions & Exhibitions	3	4
BHT3010	Contemporary Issues in Hospitality & Tourism	3	3
BHT3011	Lodging Systems & Operations	3	3
BHT3012	Contemporary Special Interest Tourism	3	4
BLR3001	Festivals & Events 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
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.

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

In your Freshman year, you will go through a programme similar to that undertaken by other Business students but with an introduction to some basic law subjects. In your Junior and Senior years, you will go on to study a wider range of substantive and procedural law subjects. In addition, you will be offered more management and accounting subjects that will be covered over the various semesters. You will also study cross-disciplinary subjects of your choice. In the Senior year, you will have a further option of choosing two diploma electives.

Where suitable, substantive law subjects will be taught using the Problem-based Learning approach, involving at times web-based, online interaction. You will study various procedural law subjects, using the Real Environment Active Learning (REAL) approach. REAL teaching seeks to promote active learning by simulating, as far as possible, the actual working environment of the legal profession. Furthermore, the subject Management of Law Of ce & Court Technology taught in the Senior year will reinforce much of the management and legal issues learnt over the previous two years.

> From our inception, we have endorsed this programme and employed no less than three different cohorts of graduates from the course. We have found their knowledge and skills of great assistance to lawyers in various fields of practice. We hope that TP will continue with this programme and encourage more students to pursue even higher learning to realise the potential that they have displayed.
>
> Tito Isaac
> Managing Partner, Tito Isaac & Co

Career Opportunities

Graduates are well-placed to nd employment as of ce administrators and paralegals in both law and non-legal 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 quali cation into their LLB programmes. In addition, many overseas universities also accord our graduates advanced standing towards various non-law degree courses.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

** SPM/UEC holders must have a minimum grade of 4 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

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

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Law & Management

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1003	Legal Communication Skills 1	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	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
BLM2003	Family Law	2	4
BLM2004	Law of Contract	2	4
BLM3005	Company Law	2	4
BAF3004	Company & Partnership Accounts	3	3
BLM2002	Criminal Procedure	2	4
BLM3003	Civil Procedure	3	6
BLM3006	Corporate Governance & Compliance	3	3
BLM3008	Intellectual Property	3	4
BLM3011	Management of Law Of ce & 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
BLO1002	Business Calculus (non-law)	1	4
BAF2012	Introduction to Business Finance (non-law)	3	3
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 & Resort Management

In the near future, the resort and other related leisure businesses are expected to contribute significantly to the success of the remaking of Singapore. With a major increase in the demand for trained personnel in the leisure and resort industries, you will be on the pulse of some of the most exciting, trendiest and fastest growing businesses in the world.

This course aims to give you maximum exposure to a comprehensive spectrum of leisure and resort business operations and management practices with ample real-life and hands-on learning opportunities and interactions with industry leaders. One of the key features of the course is a 20-week attachment at a self-selected company either overseas, in some of the best known resorts and leisure businesses in the world, or locally. Our curriculum strongly emphasises three major segments of the tourism industry: the resort business, leisure business and meetings and events business. In each area, you will be exposed to key aspects of operating and managing resorts and leisure entities such as clubs, spas, attractions and cruise ships. Moreover, you will get to organise 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 setting. 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 E-business in Hospitality & Tourism. The course is also intently focused on honing your creative thinking and problem-solving skills through active engagement in forums and presentations.

> TP constantly stays connected with industry practitioners to ensure that graduates of this programme have the relevant skills and knowledge. I have no doubt that the school's comprehensive curriculum will give its graduates a good career start in one of the world's most exciting and booming business sectors.
>
> Seah-Khoo Ee Boon
> Director, Human Resources and Training
> Resorts World at Sentosa Pte Ltd

Career Opportunities

You will be prepared for a wide range of career options and readily nd employment in leisure and resort businesses such as lodging properties which include hotels and resorts; country clubs; attractions; cruise businesses; spas; event, meeting, exhibition and convention companies. You can expect to assume a junior executive position at the workplace with the Diploma.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/Communication English or English Language (for UEC holders).*

Graduation Requirements

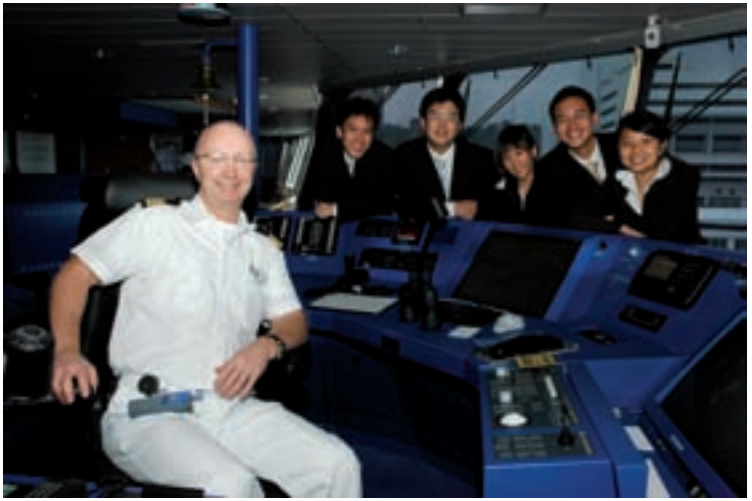
Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 25 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 6 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Leisure & Resort Management

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'.



Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BSI3009	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
BCC1002	Fundamentals of Food & Beverage	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BHT1010	Introduction to Hospitality & Tourism	1	4
BLO1004	Research for Hospitality & Tourism	1	4
BMK1001	Basics of Entrepreneurship	1	1
BAF2001	Accounting for Hospitality & Tourism	2	4
BAF2009	Management Accounting & Finance 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
BLR2001	Introduction to Leisure & Recreation	2	4
BLR2002	Attractions Management	2	4
BLR2006	Leisure & Resort Facilities Management	2	3
BHT3006	Destination Planning & Development	3	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	3
BLR3008	Spa & Wellness Management	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.

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 in many industries and organisations as many are extending their geographical reach and influence. Companies need trained people who understand the nature of logistics and supply chain in an increasingly connected world.

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 on 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.

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.

> It is really important that leading edge logistics companies spend their time and effort to nurture the next generation of logisticians coming through Temasek Polytechnic. The exposure and out-of-classroom learning will always give students a valuable grounding that will form the foundation stone for the future.
>
> Paul Smith
> Order to Delivery Manager
> Sandvik S.E.A. Pte Ltd

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 of cer, inventory and production planner, master scheduler, customer service of cer, warehousing executive, freight forwarding executive, shipping administrator, logistics executive and supply chain analyst.

The work of a logistician is never dull. Are you up to the challenge?

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/Communication English or English Language (for UEC holders).*

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

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Logistics & Operations Management

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	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
BLO3003	Logistics Planning & Control Systems	3	4
BLO3007	Quality Management	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

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 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 eld.

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, Internet marketing and customer relationship management. The Senior year curriculum focuses on strategic marketing, brand management, marketing communications, globalisation and entrepreneurship to prepare you for entry into the professional marketing environment.

Through activities such as client-based projects, overseas study 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 Brand Hub, also add to your real learning by creating the actual working environment.

> The three groups of TP Marketing students who were with us were able to articulate regional marketing strategies, differentiate between regional-level and country-level initiatives, and craft staged marketing campaigns. I appreciate both the quality of their work, backed by solid background research, as well as that of the comprehensive supporting materials.
>
> David Henry
> General Manager
> Corporate Marketing
> Southeast Asia and Oceania
> SAMSUNG Asia

Career Opportunities

This course opens the door to a varied range of opportunities for you. As you are trained to be exible and creative problem-solvers, employment prospects are bright in a wide range of challenging elds such as branding, advertising, marketing communications, events marketing, resort marketing, public relations, trade and consumer sales and marketing.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 97 credit units
Elective Subjects	: min 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in 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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
BSI3008	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
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
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	Internet Marketing	2	4
BMK2012	Retail Management	2	4
BMK2013	Integrated Marketing Project 1	2	2
BMK3002	Entrepreneurship	3	4
BMK3003	Global Marketing	3	4
BMK3004	Strategic Marketing	3	4
BMK3011	Brand Management	3	4
BMK3012	Sales Management	3	4
BMK3013	Integrated Marketing Communications	3	4
BMK3014	Integrated Marketing Project 2	3	2

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.

Retail Management

The retail industry is a key sector of Singapore's vibrant economy. There is 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.

This course trains you exclusively in the processes, technologies and trends of retail management. The training aims to help both large as well as small retailers in Singapore to level up and bring world-class service standards to the specialised eld 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. 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 specialized skills will be acquired through subjects such as Merchandise Buying, Retail Visual Merchandising, Retail Branding, International Retailing and Retail Informatics.

You will engage in practical retail shop oor activities in our simulated retail store, 1st Avenue. This provides you with the necessary hands-on experience on the shop- oor level in the various practicums to facilitate your transition from education into the workplace.

> In today's competitive retail climate it is essential to learn, understand, and execute the mechanics behind successful retailing. Retailing is the final and decisive step in a complex business process between product development and customer satisfaction. There are few business schools focusing on retailing. This course will be a valuable contribution to the vibrant world of retailing today.
>
> Tom Huzell
> Managing Director
> IKANO Pte Ltd
> IKEA Singapore and Malaysia

Career Opportunities

The eld of retailing is large and opportunities for employment are available in many business organisations. With the multi-disciplinary skills and relevant shop- oor 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 employed as retail operations supervisors, retail business development executives, merchandisers, visual merchandisers or marketing executives.

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: Combined Humanities, Commerce/Commercial Studies, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 99 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 120 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Retail Management

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1001	Communication Skills 1	1	4
BCS1002	Communication Skills 2	1	5
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	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
BMK2005	Marketing Research	2	4
BRM2002	Retail Visual Merchandising	2	4
BRM2003	Merchandise Buying	2	4
BRM2006	Store Management	2	4
BRM2009	Retail Buying Behaviour	2	4
BRM2110	Financial Aspects in Retail Management	2	4
BRM2111	Retail Practical 1	2	3
BRM2112	Retail Practical 2	2	3

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BMK3002	Entrepreneurship	3	4
BRM3006	Retail Promotion & Branding	3	4
BRM3007	Retail Informatics	3	4
BRM3008	International Marketing & Retailing	3	4
BRM3009	Mall Management	3	2
BRM3110	Retail Practical 3	3	3
BRM3111	Distribution Channels	3	4
BRM3112	Strategic Retailing	3	4
BRM3113	Retail Practical 4	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

BAF1001 Business Accounting 1
This subject provides you with an understanding of basic accounting concepts, the accounting conventions, and their applications in businesses. It will cover 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 you with an understanding of various types of organisations, and skills to prepare and interpret nal accounts of these organisations. It will also cover preparation of the cash ow 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 cycle for businesses. You will learn how to prepare nancial 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 pro t 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, and independent topics like accounting for incomplete records, and clubs and societies.

BAF1007 Basic Business Finance
This subject provides you with a general overview of the balance sheet and pro t 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 nancial tools and techniques used by the nancial manager in the management of funds and other nancial resources.

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 nancial 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 nancial manager in the management of funds and other nancial 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 ow and information processing in an accounting system, controls in accounting systems, and concepts of data ow from e-commerce applications to accounting systems. You will also be trained in accounting software widely used in 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-pro t 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, xed-income securities and alternative investments.

BAF2007 International Finance
This subject equips you with the practices of nancial institutions, exporters and importers in international trade and introduces you to swaps, options and other instruments available for businesses in hedging foreign exchange and interest rate risks.

BAF2008 Management Accounting
This subject provides an insight into how accounting information is used as a tool for planning, control and short term decisions. It introduces you to basic tools and techniques such as pricing, budgeting and performance measurements.

BAF2009 Management Accounting & Finance for Hospitality & Tourism
This subject covers the basic concepts of cost and nancial 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-pro t analysis, time value of money and budgeting.

BAF2011 Partnership & Company Accounts
This subject focuses mainly on the business structures of the partnership and company forms of organisation. You will learn how to prepare the nancial accounts of partnerships and companies.

BAF2012 Introduction to Business Finance
This subject provides you with a general overview of the balance sheet and pro t and loss statement of the company. It will also provide a basic understanding of the sources and allocation of funds within a business enterprise, and an appreciation of some of the nancial tools and techniques used by the nancial manager in the management of funds and other nancial resources.

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

BAF3003 Bank Treasury Management
This subject provides an overview of the foreign exchange and money markets. You will be introduced to the mechanics of trading in these markets and understand the operations of the settlement procedures.

BAF3004 Company & Partnership Accounts
This subject covers in detail 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 nancial 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 nancial 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.

BAF3009 Financial Institutions & Markets
This subject provides you with a comprehensive overview of the nancial system structure in Singapore. You will learn the role and functions of the various nancial institutions and how these institutions provide nancial support to different types of business organisations and individual clients.

BAF3010 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 pro t, capital allowances, personal reliefs and income tax liabilities will be discussed.

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, absorption and variable costing, analysis of segments and cost-volume-pro t 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 emphasizes 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 nancial planning. It covers the key aspects of nancial 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 bene ts in kind for individuals, taxation treatment of partnerships, common investment incentives for companies, double taxation reliefs and distribution of corporate pro ts are covered.

BAF3016 Security Analysis & Portfolio Management
This subject teaches you how to apply the nancial tools and techniques to make decisions in selecting a portfolio of securities that meet the company's predetermined set of nancial goals, especially in the investment of funds. Topics to be covered include security analysis and valuation, modern portfolio theory and formulation of investment policy.

BAF3018 Corporate Reporting & Audit
This subject introduces you to the nancial reporting framework in Singapore and provides you with the basic skills in preparing and presenting group (consolidated) nancial statements. You will also be exposed to fundamental concepts and techniques in auditing to gain an understanding of the purpose and practice of auditing in Singapore.

BAF3019 Advanced Accounting
This subject provides an in-depth study of the advanced concepts and principles relating to accounting standards and consolidated accounts. It equips you with the requisite knowledge and skills to be effective in handling realistic and higher level problems and issues in nancial reporting.

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 rms where you will be able to handle various aspects of an audit assignment.

BBS1001 Principles of Management
This subject provides you with an insight into the key functions of management and the practical issues which managers of today face. Aspects of management such as planning, organising, leading, controlling, international management, business ethics and social responsibility will be covered.

BBS1002 Organisational Behaviour
This subject provides you with 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 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 programmes and learn how these can contribute to organisational effectiveness.

BBS2006 Principles of Corporate Communication
This subject provides you with an overview of the principles and practices of corporate communication. Topics will include corporate communication strategy, internal and external stakeholders, corporate identity and image management, corporate advertising, crisis management and corporate communication challenges.

BBS2007 Corporate Journalism & Publications
This subject provides you with the essentials of corporate writing and speaking, including how to craft articles and speeches for different occasions, and organise them into attractive packages which target different audiences. You will plan, develop, present and evaluate various corporate literature: company newsletters, corporate brochures and annual reports. Visits to production houses will form part of coursework, as well as presentations by industry professionals.

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 managing 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 the understanding of issues on growth factors, market strategies, resource and operations management, the subject enables you to understand how an organisation manages the growth of business as market and competitive environment change.

BBS3001 Human Resource Development
This subject provides you with well-rounded knowledge in the eld 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 will include performance appraisal, pay for performance, salary and incentives administration.

BBS3003 Corporate Events Management
This subject provides you with 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, in particular, print, broadcast and online media. 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 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 rms overcome resource limitations, entrepreneurial action in innovation, market entry mode choices of corporate entrepreneurs, networking and alliances of small entrepreneurial rms 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.

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. Basic theories will be supplemented with hands-on exposure to web page creation and designing, and spreadsheet application.

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.

BBT 1003 Business Computing Skills
This subject is application-based and covers advanced features in of ce automation tools like presentation tools and spreadsheets, and how these can aid in business decision making. You will also be taught to design and create web pages using popular web authoring tools and multimedia applications. Projects requiring these skills will be assessed. The hands-on aspect of the subject is complemented with fundamental concepts on computer systems and software, and an appreciation of the Internet and current IT trends.

BBT1005 Computer Technology & Office Systems
This subject covers the fundamental concepts about 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 an organisation. The basic theory will be complemented with laboratory sessions, aimed at exposing students to of ce productivity tools and equipping them with basic technical support skills.

BBT1006 e-Business Management
This subject exposes you to the different types of e-commerce/e-business models. You will also learn about Internet marketing and retailing and managing customer relations and identifying e-commerce/e-business strategies and implementation.

BBT2002 Open Technology & Business Systems
This subject covers the phases of technological advancement, with emphasis on the characteristics of open technologies in general, and on information technologies in particular. It builds upon students' 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 and a database to build an application.

BBT2003 Data Mining
This subject equips you with the knowledge and skills of data mining for the purpose of helping companies understand their customers better and enhancing their competitiveness. It aims to develop an understanding of the knowledge discovery process and an awareness of the structure of data warehouses. It will enable you to use various data mining techniques to discover patterns in data to explain current behaviour or to predict future outcomes. You will use data mining software to experimentally build and test data mining models as well as interpret results and apply them to appropriate problems.

BBT2004 Enterprise Resource Management
This subject dwells on Enterprise Resource Planning (ERP), an extremely 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 ef ciency of operations and helps managers make better decisions.

BBT3005 Business Information System 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 current industry practices, government policies and future trends by looking at certi cation, audits and plans that businesses are working on.

BBT3006 Business Strategies in IT
This subject reinforces and consolidates 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 nancing, 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. It will cover both operational issues and strategic risks of IT outsourcing and multi-sourcing. You will also learn about risk management in a rapidly changing business and IT landscape.

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 and knowledge management, and explores trends affecting the future of business intelligence.

BBT3009 Enterprise Applications
This subject aims to equip you with the knowledge to successfully plan, design and implement enterprise applications. You will understand that the success of these 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. You will also have a chance to use a 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 used in the culinary and catering industry such as fruits, meats, vegetables, herbs and spices. Areas such as origin, classi cation, 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 the idea of continuous improvement, food trends will also be discussed and taught.

BCC1002 Fundamentals of Food & Beverage
This subject introduces you to fundamentals in food and beverage science, which is essential knowledge in the catering business. You will learn about the various types of food, including the selection of food, and current food trends as well as the different types of alcoholic and non-alcoholic beverages. Essential knowledge on food nutrition and correct hygiene practices are also covered.

BCC2001 Wine & Beverage
This subject aims to provide you with a broad understanding of wine and beverages. Topics covered include non-alcoholic beverages, fermented beverages, forti ed 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, and food and wine harmony.

BCC2002 Food Safety & Hygiene
This online subject provides you with an introduction 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 ow and food quality management; cleanliness and sanitation; pest management, accident prevention and crisis management.

BCC2003 Food & Beverage Operations
This subject introduces you to all aspects of food and beverage operations. Historical in uences 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, pro t and loss statements and technological innovations. Current legal, human resource and licensing issues will also be discussed.

BCC2004 Culinary Practicum
This subject provides you with fundamental culinary skills in Western cooking, baking and pastry, and introduces you to major Asian cuisines. Topics include: fundamentals of a commercial kitchen, Western kitchen: garde manger and main course, baking and pastry, and Asian kitchen: Chinese, Indian and Southeast Asian. You will also get the opportunity to learn hands-on about ingredients, their characteristics, cooking methodology, terminology, recipe interpretation, measurements and conversions, equipment and utensils, technology, quantity food production and service, food service safety and sanitation, and food storage management.

BCC3001 Service Practicum
This subject gives you rst-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 will require 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, and 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, marketing and sales.

BCC3004 Operations & Management of Food & Beverage
This subject introduces you to food service management and operations. It covers the implications of day-to-day operations, basic cost control systems, pro table menu planning, restaurant oor 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 ef ciency 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.

BCM1001 Communications & Media Marketing
This subject provides an integrated introduction to marketing and marketing communications. A holistic approach is employed to build a broad basic range of skills needed to sense, serve and satisfy customer needs. Key topics include the environmental forces affecting the marketing process, tools used by modern marketers and the Ps of marketing.

BCM1002 Graphic Design Fundamentals
This subject provides basic principles of design through 2D and 3D exploration and experimentation of various media, materials and techniques. It also looks at the procedures underlying the application of typographic layout in print and electronic communication.

BCM1003 Essential Graphic Software
This subject offers an insight into software packages that allow the authoring of graphics, including graphic authoring tools like Photoshop and Freehand. It will provide an understanding of the technologies and components of graphics and its place in modern society.

BCM1004 Journalism 1: Newswriting
This subject covers the fundamentals of news gathering, news writing and news judgement for all media, study of news sources, eldwork, 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 pro les, sidebars, back-grounders, and colour writing.

BCM1006 Media & Society
The subject exposes you to an investigation into the societal role played by the mass media as a cultural, social, informational, economic, political and educational force. It will examine 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 will cover the managing of media institutions and discuss 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.

BCM1008 Persuasive Communication
This subject focuses on the fundamentals of speech communication and presentation skills. It aims to help you make effective business presentations and communicate your ideas to clients. It will focus on oral presentations, report writing, speech writing and personal grooming.

BCM1009 Photography
This subject focuses on the technical and aesthetic principles of photography and digital imaging manipulation.

BCM2001 Basic Media Research
The subject gives you a broad understanding of media research. It covers research methods, and the areas of epistemology, ethnology, and ontology. Topics covered will also include content analysis, survey research, experimental design, computer based analysis tools (eg, SPSS) and investigative reporting. You will conduct case studies on research reported in the print and broadcast media, examine the consequences of media research and study the research of “consumers” or readers.

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 fundamental 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: radio, television, entertainment, news, sports and how to conduct broadcast interviews.

BCM2004 Chinese Newswriting
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 will also explore basic translation techniques.

BCM2005 Cross-Cultural Communication
This subject will cover topics such as cultural imperialism, social and cultural identities and structures and barriers within and between cultures in communication. It will also investigate issues on migrant-host relationships, foreign talent, and intercultural con icts.

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

BCM2009 Multi-Media & Electronic Publishing
This is an introductory class to Junior year students and gives you a broad understanding of multimedia and electronic publishing. You will learn to use multimedia tools such as Flash, Director, Sound Edit, and Final Cut Pro. The subject will also provide an understanding of the electronic publishing environment and its applications.

BCM2010 Radio Studio Production
You will learn the techniques of live studio presentation including on-air announcing/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 will also focus 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, Iming techniques, indoor/outdoor lighting techniques, basic scripting, directing and non-linear editing.

BCM2012 Social Psychology / Sociology
This subject deals with the effects of the social environment on the formation of individual attitudes, actions, values, and beliefs, and on the individual and group. Topics on speci c human behaviour such as aggression and altruism will be discussed. The relationship between media and social construction will also be explored.

BCM2013 Sports Media Marketing
Sports media marketing focuses on strategies and actions designed to promote sports-related products, persons, events, ideas and organisations through positive media attention. The subject will examine the ways in which the media has been dominating how sport is played, organised and thought about in society.

BCM3001 Advanced Journalism
You will hone your basic skills in magazine and news editing, with special emphasis on creativity in editing, layout and design, news selection and news judgement. You will also learn the business of publishing, in particular, the use of colour, budget, advertisement placement, costing, deadline scheduling, circulation and promotion.

BCM3002 Advanced Media & Marketing Management
This subject covers the concepts of marketing management and recognises the importance of the media planning discipline. It includes consideration of the threats and opportunities posed by the proliferation of traditional and new media and will cover topics such as consumer behaviour, competitive strategy, and brand management.

BCM3003 Advanced Television Production
In this subject, you will build on experience and polish skills developed in earlier single camera and multi-camera studio production courses. You will be required to generate story ideas, write your own scripts and shoot and edit your own videos.

BCM3004 Broadcast Journalism
In this subject, you will learn the steps and procedures required to produce a news bulletin. You will be taught broadcast news writing, news reporting, news editing as well as the production aspects of broadcast news. You will also learn how to produce regular news bulletins.

BCM3005 Internet Journalism
This subject will cover the principles and techniques of online journalism and publishing. Topics will include online news selection, production and presentation, and management and publication issues in online publishing. A segment on e-commerce and e-marketing will also be explored.

BCM3006 Magazine Editing
In this subject, you will acquire skills in identifying and conceptualising stories for magazines. You will learn how to generate stories for magazines, the importance of nding the right angle to t the mission of the magazine, how to work with a writer to improve a story, and how to write headlines, captions and blurbs for magazines.

BCM3007 Promotions & Campaigns
This subject addresses communication management through the effective use of the promotional mix. You will also be introduced to theories, models and tools to help you make better promotional communication decisions. The subject makes extensive use of group role-play with realistic problem-solving projects.

BCM3008 Scriptwriting
The main focus of the subject is on writing for television. You will be exposed to the different genres of television programmes (drama, variety, documentaries, etc) and will be guided in the unique writing principles that will be applied to each genre.

BCM3009 Web Design & Management
This subject is an advanced course incorporating the tools, techniques, and skill sets gleaned from Essential Graphic Software, and Multi-Media & Electronic Publishing. You will learn how to manage web-based content, buying of web media, advertising and promotion on the Internet, and maximising reach as well as pro ts.

BCS1001 Communication Skills 1
This subject provides you with competencies in both oral and written communication. You will be taught mind-mapping, report writing, collaborative learning and oral presentation skills as well as basic writing skills.

BCS1002 Communication Skills 2
This subject provides you with communication skills necessary for work. Topics covered will include application letters, resumes, interviews, meeting skills as well as interpersonal skills.

BCS1003 Legal Communication Skills 1
This subject provides you with competencies for the academic world. You will be taught thinking and writing skills as well as skills in collaborative learning, oral presentation and basic writing.

BCS2001 Legal Communication Skills 2
This subject provides you with skills for the world of work. You will learn skills involving meetings, interpersonal relations, report writing and business correspondence.

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, in ation, and monetary and scal policies will be discussed, followed by a study of international trade.

BHT1010 Introduction to Hospitality & Tourism
This subject aims to provide you with 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. You will also be introduced to the concept of tourism demands and tourism consumer behaviour. Finally, you will gain an appreciation of the trends, issues and challenges facing the industry.

BHT1014 Travel & Tour Operations
This subject examines the travel business and the different roles the travel agency plays. It guides you on the importance of itinerary planning and design, understanding tour coordination and operations as well as looking into the area of business travel. The subject wraps up with a look at the future trends, issues and challenges faced by the industry.

BHT2003 Club & Resort Business
This subject will go through the various de nitions and classi cations of club and resort business, resort planning and development, as well as operations and marketing of clubs and resorts. It will give you an appreciation of the operational challenges clubs and resorts face.

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 set out to build a foundation in event conceptualisation, development and production, covering topics such as marketing of events, human resource management and budgeting and staging.

BHT2008 Business Etiquette & Service Excellence
This subject focuses mainly on the soft skills aspects of business and customer service. The former illustrates the importance of power dressing, dining etiquette, cross-cultural psychology, halo effects, and skills necessary to make the transition from school to the work place. The latter 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 service.

BHT2009 Service Skills Methodology
You will have first-hand experience in operating a range of food and beverage 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 will provide you with an overview of the travel and leisure business in the 21st century. Specifically, topics encompassing the components and structure, key dynamics and the environment and issues facing the world's largest business will be covered.

BHT2014 Principles of Marketing for Hospitality & Tourism
This subject will cover 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 reservation and ticketing of air products. You will be given an insight into how an itinerary is priced and tickets are issued. Learning will be done using a global distribution system programme such as the Amadeus. The subject also provides you with some basic knowledge of the airline and travel industry. Upon successful completion, you will be issued with the Certificate in Reservation and Ticketing that is recognised by the industry.

BHT2016 Club, Resort & Spa Business
This subject is designed to give you a basic understanding of the organisation and management of various types of private clubs, resorts and spa businesses. You will discuss issues concerning the successful marketing, management and development of the three types of businesses and will also get to appreciate the opportunities and challenges faced by these businesses.

BHT2018 Geography of Travel & Tourism
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, the techniques to explore greater learning and the confidence to sell destinations.

BHT2019 Travel Transport Business
This subject provides an overview of transportation system design and its effects on tourism. You will learn about its role and the relevance of transport in tourism, transport modes and their selection, inter-modal transport system, international tourist transport infrastructure, including the major air and sea hubs, their hinterland, and major air/sea/land routes/corridors. You will also examine the operations of the various modes of transport, the role of transportation regulatory bodies and policies that affect the development of air, sea and land modes of a transportation system.

BHT3002 e-business in Hospitality & Tourism
This subject provides you with a strategic overview of the use of information and communication technologies (ICT) in the hospitality & tourism industries. It also exposes you to the various basic concepts and key areas like the different types of e-business models, e-business architecture, security, privacy and legal issues and the process of establishing an online business.

BHT3006 Destination Planning & Development
This subject examines the roles of tourism policy and planning in the overall development of the destination. While the policy provides the guidelines for development, planning identi es the exact nature and timing of speci c activities that need to be taken into account to achieve maximum development effectiveness. Questions and issues discussed include sustainable development and the roles of national tourism organisations and other related agencies both in the private and public sectors.

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 aims to equip you with an awareness of the diversity of meetings and their roles and contributions in enhancing tourism and destination development. It provides you with a broad understanding of the planning process for MICE activities and the different relationships between industry parties involved.

BHT3010 Contemporary Issues in Hospitality & Tourism
This capstone subject integrates the study of hospitality and tourism by examining current issues that are topical and relevant to the industry. It enables you to select the diverse range of issues faced in the dynamic hospitality and tourism sectors and discuss their implications. You will be required to comprehend, critique, analyse and evaluate the issues at large, culminating in the production of a research paper.

BHT3011 Lodging Systems & Operations
This subject focuses on the fundamentals of lodging operations. It concentrates on the roles of the customer, the operator and the service provider. You will have a clear understanding of the importance of lodging systems and their effect on operations. You will be able to apply knowledge gained to explore new and innovative ways of improving existing systems and operations.

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, speci c interest areas, strategies, policies, product development and marketing of this new and growing tourism sector will also be examined.

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 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 will include the laws relating to negligence, nuisance, defamation, assault and battery.

BLM1003 Legal Systems & Methods 1
This subject introduces you to 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 basic legal research and legal opinion writing. There will be eld trips to key legal institutions such as the Courts and Parliament to bring alive the study of the legal system of Singapore.

BLM2001 Conveyancing Law & Procedure
This subject introduces you to 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 will cover 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 to be covered include marriage, divorce, the maintenance of wife and children, the protection of the family, division of matrimonial assets and the parent-child relationship. Close attention will be paid to the Women's Charter and relevant cases.

BLM2004 Law of Contract
This subject provides you with 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 will also cover the major vitiating factors and the ways in which contracts can be terminated.

BLM2005 Legal Aspects of Business
This subject provides you with a working knowledge of the general principles of law that are important to business, including e-commerce. 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 will also cover accident litigation, matrimonial proceedings and an introduction to the Electronic Filing System.

BLM3002 Arbitration & Alternative Dispute Resolution
This subject covers the various forms of dispute settlement process with particular emphasis on the concepts, techniques, process and conduct of mediation. The difference between arbitration and other forms of dispute settlement will also be included. Emphasis will be placed on the key concepts of arbitration and the law and rules governing the arbitration process. The subject will also cover important provisions of the Arbitration Act, the International Arbitration Act, the UNCITRAL Model Law, the SIAC and UNCITRAL Arbitration Rules. In addition, drafting of the various documents required for use in the arbitration process will be taught.

BLM3003 Civil Procedure
This subject introduces you to the litigation process from commencement of a writ action to enforcement of a judgement. It will also cover the substantive legal principles underlying civil procedures and includes hands-on training in the drafting of court documents.

BLM3004 Commercial Transactions
This subject introduces you to the Sale of Goods Act, the concepts of "property" and the passing of risk. It will include 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 you with 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 nance, winding up and judicial management of companies.

BLM3006 Corporate Governance & Compliance
This subject will equip 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 you with 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 workmen's compensation insurance and the operational aspects of insurance and reinsurance.

BLM3008 Intellectual Property
This subject includes the substantive law relating to con dential information, trademarks, patents and copyright. You will learn trademark and patent registration procedures through a hands-on project. The remedies available in the event of infringement will also be covered. You will be given an introduction to the protection of information technology with particular reference to the Computer Misuse Act.

BLM3009 Company Law for Business
Designed for non-law students, this subject provides you with an understanding of the law that governs and regulates companies in Singapore, particularly in areas relevant to commerce and industry. Topics such as types of companies, directors' duties, objects and powers of a company, membership of a company, capital, shares and dividends, receivership, judicial management and liquidation will be covered.

BLM3010 Law of Banking & Finance
This subject introduces you to all aspects of the banker-customer relationship, 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 nancing transactions. The legal aspects of unit trusts and credit card frauds will also be considered.

BLM3011 Management of Law Office & Court Technology
This subject covers principles in managing a law of ce including managing human resources, the of ce environment, work ow management, of ce automation, records and document management, logistical support, electronic ling and litigation support systems.

BLM3012 Shipping Law & Practice
This subject introduces you to 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, probate and administration. Particular attention will be paid to drafting of wills and the procedures for obtaining grant of Letters of Administration and Probate.

BLM3015 Intellectual Property, Media Law & Ethics
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 will also address ethical issues and considerations in news reporting and gathering.

BLO1001 Business Statistics
This subject provides you with an overview of descriptive and inferential statistics. It includes sampling methodologies, basic concepts of probability and hypotheses testing used in inferential statistics. You will be able to make decisions in a business environment.

BLO1002 Business Calculus
The subject provides you with 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 Management
The subject provides you with the basic understanding of statistics and research techniques. You will learn to formulate a research problem, apply 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, variety of quantitative as well as qualitative techniques used in the collection, analysis, interpretation and presentation of research ndings. It also introduces 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 in logistics, covers the contribution of logistics to the economy, and examines other trends such as outsourcing and third-party logistics (3PL). You will also be given hands-on experience in using computer software 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 you with 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. You will be able to ensure ef ciency and effectiveness in business operations.

BLO2005 Purchasing Principles & Practice
This subject provides you with 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 will cover supplier management, purchasing performance measurements, planning and control, negotiation, bidding and international procurement. You will be able to understand and appreciate the constraints associated with this eld and be prepared for potential employment in the industry.

BLO2010 Distribution Centre Management
This subject covers the various aspects of managing a distribution centre/warehouse. It will include the role of distribution in the total logistics process, the planning process for ef cient operations of a distribution centre, the impact on customer service and cost, materials handling system, practices and trends of the warehousing industry in Singapore.

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

BLO3003 Logistics Planning & Control Systems
This subject deals with 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. It will also include hands-on instruction and practice using industrial application software.

BLO3007 Quality Management
This subject deals with quality competitiveness and its impact on the success of organisations. It will focus on the principles of Total Quality Management and some of the common techniques associated with controlling quality. The subject covers the criteria and framework used in assessing companies' achievement of system quality. You will also be introduced to international industrial standards such as ISO 9000 series and the Singapore Quality Award.

BLO3008 Transport Management
This subject covers the entire process of freight shipment. It includes the importance of transport in a changing business environment, costing and pricing methods for freight transportation, international shipments on import/export customs procedures and documentation. Other aspects of shipment process such as terms of sales, impact on goods and services tax, insurance, liability and claims management, and special handling requirements of hazardous cargo will be discussed. You will be given hands-on training in the use of Tradenet, and transport resource planning 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, feasibility study, quantify the bene ts of the improvements and implement various improvement processes.

BLO3011 Bio-Chemical Logistics
The subject aims to equip you with the 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 will also instil 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 will comprehensively cover e-markets and extended enterprise for collaborative commerce, as well as relationship management and ful lment 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
This subject enables you to learn how to view supply chains as integrated process systems instead of isolated entities. You will use specialised software to model variables in production and delivery lead times, demand patterns as well as other random behaviours exhibited by supply chain members. You will learn the theory behind business process re-engineering and how improvements can be made, as well as use of software to model supply chain member relationships.

BLO3015 Global Trade & Singapore Logistics
This subject deals with the roles of global trade and its impact on our economy. You will be able to use an appropriate trade nancing or payment method in order to minimise risks in global trade. The subject also examines the roles of logistics in supporting the Singapore economy especially in the areas of distribution, manufacturing and transportation. You will gain a good understanding of the logistics sector and current key initiatives driven by government agencies such as the EDB and International Enterprise Singapore.

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 will focus on the signi cance 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 ows, customs documentation and clearance procedure will 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 ef ciency of freight and to encourage more ef cient freight delivery will also be discussed.

BLO3017 Cold Chain Management
This subject provides you with basic knowledge of the 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.

BLR2001 Introduction to Leisure & Recreation
This subject provides you with an overview of the leisure and recreation industry in Singapore and throughout the world. It covers history, theories and concepts as well as an examination of the structure of the industry. You will learn how to manage the dynamics of leisure businesses by examining the marketing and social-political environments which have an impact on their organisation and programming. Issues and challenges facing the industry will also be discussed in relation to the existing and potential key business players.

BLR2002 Attractions Management
The study of the various types of visitor attractions, both man-made and natural, their unique characteristics and corresponding management and operational concerns will form the backbone of this subject. 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 in uence 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.

BLR2006 Leisure & Resort Facilities Management
This subject emphasises managerial responsibilities for ef ciency in leisure and resort facilities design, cost-reduction management strategies and property maintenance strategies to ensure optimal performance of the facilities. Coverage also includes preventive and contract maintenance systems and processes, ISO 14000 requirements and major facility systems. Through e-learning mode, the scope covers most leisure and resort facilities ranging from spa, cruise and ferry terminals, airports, resorts, tourist attractions, clubs, as well as convention and exhibition facilities.

BLR3001 Festivals & Events Management
The subject introduces you to the scope and the operational aspects of events in the context of the tourism 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.

BLR3002 Resort Operations & Management
This subject will give you an understanding of the resort industry by rst covering the historical development of resorts. This will enable you to understand why various management approaches are applied to operational issues unique to resorts. Special attention will be paid to the planning, development, design and operations of year-round resorts, and especially on the programming of guest activities and the provision of recreation. The business aspects of resort management will also 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, nancial management, marketing, events planning, recreation, sport and tness 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 regard to 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.

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 will help to develop your entrepreneurial mindset.

BMK2001 Advertising & Promotion
This subject provides you with an understanding of customer communications. It will focus 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 pro table 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 you with a broad overview of nancial management and introduces nancial techniques and concepts that are important to marketers. This unit gives you an opportunity to use nancial statements and ratio analysis to assess a company's nancial health and its future prospects.

BMK2005 Marketing Research
This subject provides you with 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 Internet Marketing
This subject offers you insights into the use of Internet technology as a marketing tool and describes the manner in which transactions take place over networks in the practice of marketing. It examines how technology can impact marketing strategies and practices in this New Digital Age.

BMK2009 Principles of Marketing
This subject provides an integrated introduction to marketing. A managerial approach will be employed to build a broad basic range of skills needed to sense, serve and satisfy customer needs now and in the future. Key topics include the environmental forces affecting the marketing process, tools used by modern marketers and the key marketing mixes.

BMK2012 Retail Management
This subject provides you with an understanding of the practice of marketing in a retailing context. It builds on basic marketing knowledge and explores issues and concepts related to the retailing industry. These include the customer-service provider interface, the special human resource environment that retailers operate in, the entertainment factor in shopping, the consumer buying behaviour within retail stores and location analysis.

BMK2013 Integrated Marketing Project 1
This subject provides you with an opportunity to apply retail marketing theories in your projects. The projects will be based on a simulated retail environment and you can experiment with different retail concepts. In particular, you will be expected to apply theories in visual merchandising to create new retail concepts.

BMK3002 Entrepreneurship
This subject gives you an opportunity to conduct eld research, in order to identify, evaluate and develop a viable business. You will create a realistic business plan expected of an entrepreneur or intrapreneur. You will also be given the opportunity to learn the skills for managing entrepreneurial start-up businesses and understand the dif culties faced by entrepreneurs.

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 re ect 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 eld 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 rms, 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 eld 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 eld research in order to identify, evaluate and select viable businesses. You will then prepare basic business plans.

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 equally 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 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 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 communication 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, pro table brand relationships.

BMK3014 Integrated Marketing Project 2
This subject integrates the learning, application and implementation of the marketing subjects: Entrepreneurship, Integrated Marketing Communications, Strategic Marketing and Global Marketing within the context of a real client project. It allows you to apply the concepts you have learnt in the related subject areas and enables you to develop a strategic, integrated marketing plan for your client in a selected foreign market.

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 elds of logistics requires you to apply the knowledge learnt to solve real-life problems. You will work as a team to identify objectives and provide recommendations for improvement.

BRM1001 Retail Accounting 1
This subject explains and illustrates how retail business transactions are recorded, summarised, classi ed 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 eld 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, xed assets, long-term liabilities and shareholders' equity.

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 identi cation of target segments.

BRM2002 Retail Visual Merchandising
This subject equips you with the skills and abilities to help retail operations visually differentiate themselves. The focus will be 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.

BRM2003 Merchandise Buying
This subject provides you with an understanding of merchandise buying in a retail context. It focuses on the internal and external forces affecting buyers' decisions in a variety of retail contexts. Topics include the role of a buyer, retail merchandise planning and assortments and factors surrounding the purchasing environment.

BRM2006 Store Management
This subject introduces you to 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 aims to provide 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 nance and accounting fundamentals that includes nancial techniques and concepts that are important to the retailing industry. You will learn the various nancial aspects of retailing such as the analysis of nancial statements, merchandise budgeting and capital investment decisions.

BRM2111 Retail Practical 1
This subject provides you with hands-on practical experience as front-liners in the retail industry. You will experience and carry out the roles of cashiers, sales associates and kiosk executives. You will be equipped with the knowledge, skills and selling techniques to provide excellent customer service and create a customer-focused retail environment.

BRM2112 Retail Practical 2
This subject seeks to provide you with hands-on opportunities in the understanding and application of retail concepts. You will learn to conceptualise ideas and apply the appropriate visual displays and xtures, merchandise planning and assortments to create an impressive retail image that will be retained in the customer's mind.

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

BRM3009 Mall Management
This subject covers an overview of fundamental aspects and practices in mall management. It includes topics on mall positioning strategies, tenant management and leasing negotiations. You will learn to determine mall retail strategies, apply retail techniques to optimise tenant mix and manage mall resource allocations.

BRM3110 Retail Practical 3
This subject provides you with the opportunity to act as supervisors and managers of retail stores. You will draft organisation charts, map out the operational and functional retail roles as well as conceptualise retail promotional and branding strategies for the stores to communicate a clear retail brand image.

BRM3111 Distribution Channels
This subject introduces you to the principles of distribution channels in the retail business. It covers the logistics and supply chain concept and its applicability to the retail sector. Topics include relationships in the supply chain management, retail logistics and the impact of technological factors to the distribution channels.

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 re ect the increasing importance in these key areas. The impact of rapid advances in technology on globalisation and implications for marketing are also covered.

BRM3113 Retail Practical 4
This subject provides you with the opportunity to act as entrepreneurs with real life experiences in managing staff and their own businesses. You will design the retail concept, set organisational goals, decide on the merchandise policy, motivate staff and strive to achieve pro t for your businesses.

BSI3001 Student Internship Programme (Accounting & Finance)
This 12-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 nance, this practical training also provides the opportunity to build important soft skills such as problem solving, communication and teamwork.

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 speci c 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 rst 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 rms, the courts or legal departments of private and public 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 in speci c job responsibilities.

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.

BSI3009 Student Internship Programme (Culinary & Catering Management, Hospitality & Tourism Management, Leisure & Resort Management)
This subject is designed to supplement your education through rst-hand experience of the work environment. It allows you to integrate the knowledge and skills learnt in the Polytechnic and apply them to situations in the industry. It provides you with the opportunity to demonstrate a professional attitude in a real-life situation.

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.

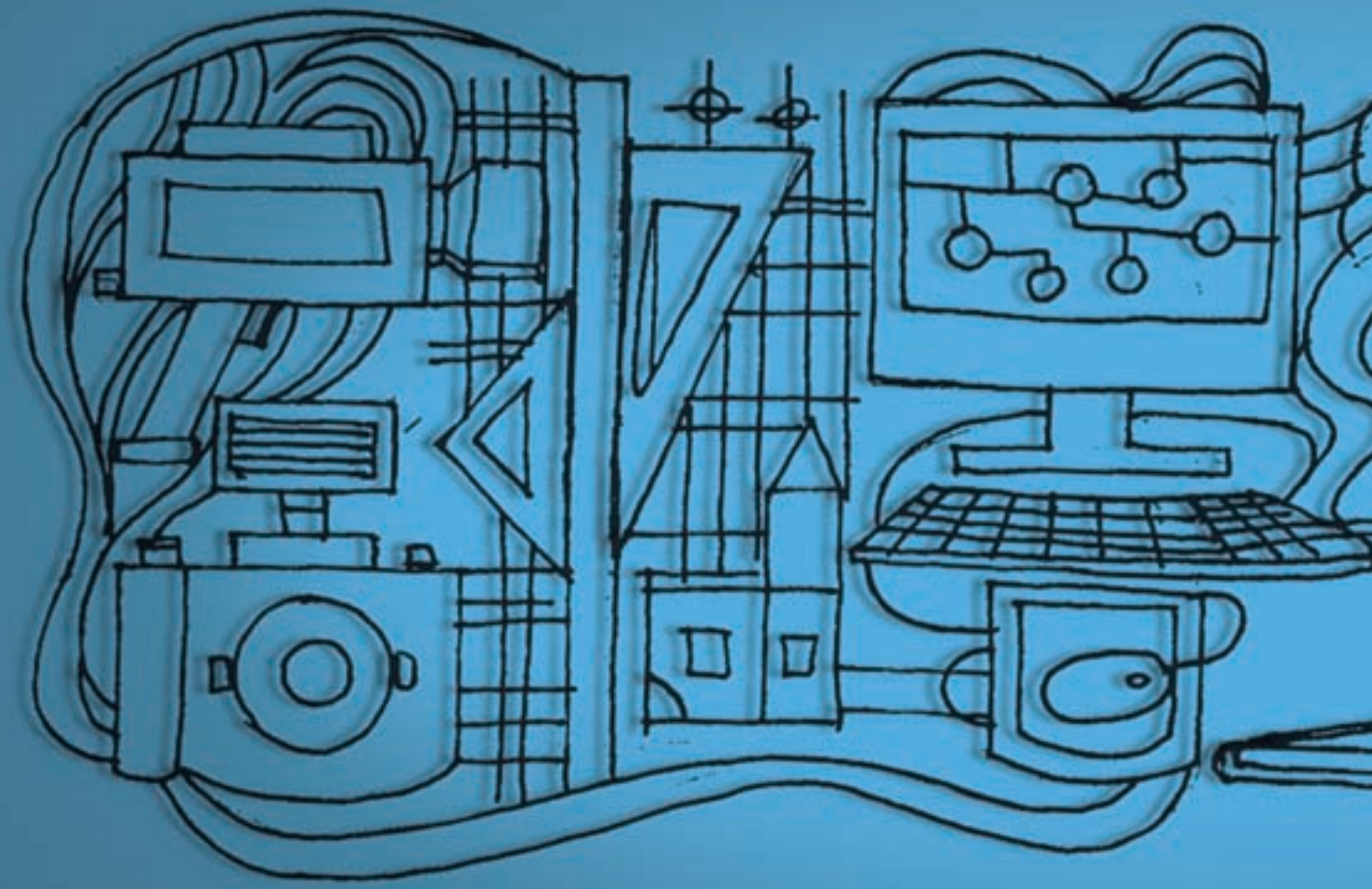
CID1C02 Web Design
This subject covers the basic characteristics of multimedia elements and the underlying technologies behind text, graphics, animation, audio and video. You will learn to use multimedia and web authoring tools to create a multimedia website based on sound design principles.

CFI1C04 Systems Analysis
This subject introduces you to the theory and practice of systems analysis in the problem de nition, requirements analysis and logical design phases of an application project life cycle. It enables you to undertake, in a methodical manner, the analysis of a given problem situation, to produce a de nition of user requirements and to design an appropriate information system from the requirement speci cations, using appropriate methods, tools and techniques.

CIM1Z01 Database Information Systems
This subject will introduce you to the fundamental concepts of relational database systems and the techniques of designing relational databases. It will also equip you with the necessary skills to formulate queries and use simple web forms for information system development.

GCD1001/1002/1003
Applied Principles for Effective Living (APEL)
Applied Principles for Effective Living is TP's Core programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extropersonal Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (ie, attitudes, skills, knowledge) towards the Principles for Effective Living, hence laying the vital foundation for their life-long success. The principles introduced in this programme are largely derived from applied psychological studies.

Temasek Design School



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Temasek Design School offers courses that cover the full spectrum of design disciplines - from apparel to product to spatial design, from electronic media to print, video to stills, the school offers a comprehensive range of design specialisms.

You will thrive and learn in an environment which is fun and exciting, tinker with cool state-of-the-art equipment that is the very latest in industry, and work with some of the most creative brains in design education today. Here, you can be sure you are at the forefront of ideas and facilities, exposed to the rapid changes in trends, thinking and concepts of the design world.

Because the design industry is very much a project-based one, learning here is also very hands-on in nature. This includes 'live' projects where you work with the best in industry. You will not only develop your creative and technical skills, you will also hone your own project and time management abilities, thus preparing you for a career in an industry driven by briefs and deadlines. It's not all studio and classroom work. Design is global in nature and so your learning experiences will re ect that. You will participate in industry-driven dialogue, seminars and workshops, go on eld trips, overseas exchange programmes, and an industry internship programme, locally or overseas.

The Temasek Design School 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, our accomplished external examiners from reputable overseas institutions have consistently attested to the very high quality of our courses. It is not surprising, therefore, that our graduates have been accorded advanced standing by the very best degree-granting design institutions for undergraduate and postgraduate studies in Australia, UK, USA, Europe and other parts of the world.

Centres Of Excellence

Centre for Design Innovation (CDi)

As the design and consulting centre of the school, CDi seeks to be the design think-tank and resource for new thinking and design direction. It is dedicated to creating high impact, result-oriented design solutions, and offers fresh-thinking and future-focused consultancy and design services to a wide range of clients. CDi responds to needs in research and consulting in the broad areas of apparel design, new product concepts and design, branding and visual communication, new media design, environment design and interior space and architectural design.

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 nished models and aesthetic prototypes.

Hereafter (HD) Post-Production Studio

This is the rst HD post-production laboratory in the region using Apple's High De nition (HD) technology and 2K work ow. This new high-end facility features the latest, state-of-the-art HD post-production editing suites used in industry today. Using the latest equipment and editing software, the suites represent a complete work ow from lming to editing in HD format. The new technology allows students to lm and edit on the go, cutting post-production time signi cantly.

Computer-Aided Design and Manufacturing Laboratories

Equipped with the latest hardware, CAID and 3D modelling software, the CAM facilities enable students to add professionalism to their apparel and textile designs, mood boards and merchandising projects. The CAM facilities enable 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.

2D/3D Animation Studios

Here, students create 2D and 3D animation forms using line test machines, stop-motion cameras and high-end computer workstations.

Light and Sound Studio

The studio enables students to experience, experiment, measure and assess the effects of lighting and sound quality in an interior environment.

Model Simulation Studio

This room is used primarily 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.

Material Resource Studio

This is a library which offers Interior Architecture & Design students the opportunity to access material samples and supplier catalogues to enable them to learn how to work professionally.

Human-Centred Design Laboratory

The habits and manners which people interact with the world are extremely important to designers in their effort to design meaningful products, services, messages or systems. This laboratory is a controlled environment in which human behaviour can be observed and studied.

Apparel Design & Merchandising

You are someone who walks past designer store windows or fashion mannequins and says to yourself, "I could have easily designed that dress!". And your friends keep telling you what great taste you have too. Deep inside, you would relish the challenge of creating a fashion statement, driving fashion trends and having a say in the process of making fashion. Know what? We've got just the course for you.

The fashion industry is a dazzling, exciting and mind-boggling arena of many specialised areas. To discover the niche that you are best in, the course offers a broad overview of the industry, as well as an introduction to design fundamentals. When you are better informed, you can then choose to specialise in either the niche area of Fashion Design & Merchandising or Retail & Visual Merchandising.

In Fashion Design & Merchandising, you will discover the challenging intricacies of the apparel design and merchandising work ow. You will learn about, and experiment with, different fabrics and trims to translate your bold visions in fashion and apparel into actual wearable pieces. You will learn the key tools of drafting, draping and sewing to bring your ideas into fruition on the catwalk.

Retail & Visual Merchandising is no less exciting an area 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.

The course relies on Problem-based Learning and hands-on training to train and develop multi-skilled professionals who can blend innovation with sound work values and business practices.

> By staying sensitive to the current and future needs of the industry, Temasek Design School has constantly produced graduates that are relevant to the fashion industry through this course.
>
> Daniel Yam
> Advance Apparel Pte Ltd

Career Opportunities

Stepping out from our Apparel Merchandising course, our graduates are in demand as merchandisers, retail managers and assistant buyers. Visual Merchandising graduates land successful careers as fashion stylists, visual merchandisers, display artists and fashion show coordinators and event managers, while Apparel Design graduates will help make fashion waves working as assistant apparel and textiles designers, assistant pattern-makers and sample-makers. And yes, some of our graduates have even set up their own businesses.

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 short-listed, 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 certi cates 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-6
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 54 credit units
Option Subjects	: 36 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Apparel Design & Merchandising

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

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
DAD1150	Fashion Illustration & Production Drawing	1	3
DAD1151	Apparel Production 1	1	3
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DPS1018	Design History & Culture	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 - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Fashion Design & Merchandising Option			
DAD1152	Basic Draping	1	3
DVC1501	Figure Drawing	1	3
DAD2116	Advanced CAD	2	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
DPS1003	Brand Building Strategies	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
DAD3159	Retail Project	3	3
DAD3160	Events Management	3	3
DIA3218	Retail Design	3	3

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIA1221	Colour & Light	1	3
DIM1307	Multimedia Fundamentals	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1002	Marketing for Designers	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	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

You are someone who lives in a world where a comfortable and designed lifestyle has become more a necessity than a luxury. You are an out-and-moving person who believes that our landscapes and open public spaces can actually be so much better designed. You have the passion and determination to create a better environment for all of us to live in. We have the ideal course for you.

In this course, you will learn and understand elements of landscape architecture, urban planning, architecture and environmental technologies. Your course will deal with the design and execution of external space like civic plazas and neighbourhood centres, and its main focus is on quality design for the environment which has become a major issue in developing and developed nations.

As part of the course, you will have to be plugged into the latest urban and parks developments. You will go on a journey to explore the aesthetics of creating urban spaces, combined with the knowledge of natural and technical sciences. This will equip you with critical skills to create exciting urban environments that are beautiful, capable of uplifting the spirit of the users, easily maintainable, ecologically friendly and economically viable.

This course will have you engaging in real, 'live' projects to escalate your personal learning and to enhance realism. Also, our project-based approach will further develop skills such as decision making, critical thinking, creativity, problem solving and innovation. You'll love what we have in store for you!

This course addresses the key issues of environmental sustainability through the design and its implementation of landscapes in the tropics. This is a niche area which is essential for the further growth and development of the landscape industry in Singapore and in the region.

P Teva Raj
Director Industry Division
National Parks Board

Career Opportunities

When you graduate, you can nd exciting careers in companies dealing with urban planning, landscape architecture, architecture, horticulture 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.

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). Short-listed candidates are usually required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. They may also show certi cates 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Environment Design

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DED1801	EVD Project 1	1	6
DED 1803	Environmental Elements	1	3
DIA1204	Digital Architectural Drafting	1	3
DIA1219	Form Exploration	1	3
DIA1226	Material & Finishes	1	3
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DPS1018	Design History & Culture	1	3
DRH1701	Architectural Drawings	1	3
DED2804	Theory of Landscape Design	2	3
DED2805	Tropical Horticulture	2	3
DED2806	EVD Project 2	2	6
DED3808	EVD Project 3	2	6
DIA2205	Architectural Design Theory	2	3
DED3813	Eco Design	3	3
DED3809	Theory of Urban Design	3	3
DED3810	Environmental Control	3	3
DED3811	Construction Technology	3	3
DED3812	EVD Project 4	3	9
DMP3013	Major Project: EVD	3	9
DRH3708	Digital Modelling	3	3
DRH3710	Professional Practice	3	3

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIM1307	Multimedia Fundamentals	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1002	Marketing for Designers	1	3
DPS1003	Brand Building Strategies	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	3	3
DIA1221	Colour & Light	1	3

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 in and see – 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 it, make it really work for the users. We've got a great course that will transform your aspirations into a profession.

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 - of ces, cinemas, homes for the elderly, museums, schools etc.

You will learn how to best balance function and appeal in the usage of any given space. Not only should your designed space look good, it also needs to function ef ciently. 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 speci c 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 just has to think out of the box, just has to have fun conceptualising different approaches and uses of a stimulating and functional environment, you just have to sign up for this course.

> 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 a good reflection on the teams of course managers, 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

Career Opportunities

Armed with professional skills to provide interior design services for corporate exhibition, institutional and residential projects, a graduate from our course can nd careers as designers and consultants in interior design consultancies, design-related businesses or an architect's of ce. 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.

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). Short-listed candidates are required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. You may also show certi cates 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Interior Architecture & Design

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’.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIA1202	Media Techniques & Presentation	1	3
DIA1204	Digital Architectural Drafting	1	3
DIA1219	Form Exploration	1	3
DIA1220	Space Planning	1	3
DIA1221	Colour & Light	1	3
DIA1226	Materials & Finishes	1	3
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DPS1018	Design History & Culture	1	3
DIA2205	Architectural Design Theory	2	3
DIA2206	Digital Media Visualisation & Presentation	2	3
DIA2209	Environmental Technology	2	3
DIA2210	Interior Elements & Construction	2	3
DIA2211	Exhibition Studies	2	3
DIA2222	Portfolio Development	2	6
DIA2223	IAD Project 1	2	6
DIA2224	IAD Project 2	2	6
DIA3214	Digital Space Simulation & Techniques	3	3
DIA3216	Interior Design Practice	3	3
DIA3225	IAD Project 3	3	9
DIA3227	Conservation & Adaptive Reuse	3	3
DMP3013	Major Project: IAD	3	9

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIM1307	Multimedia Fundamentals	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1002	Marketing for Designers	1	3
DPS1003	Brand Building Strategies	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	3	3

Cross-Disciplinary Subjects

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

Interactive Media Design

You are always online and you sigh because you just know that you can do a better job in designing and creating fresher, more cutting-edge user experiences. If you thrive on the passion for multimedia as a form of expression and believe that the digital age rules, then we've got a course that will thrust you into the industry that has changed the way in which the world lives, works and plays.

Fun is serious work in our Interactive Media Design course where we turn passionate, hardcore multimedia enthusiasts into industry-ready professionals for the vibrant, quick-paced and change-ready area of interactive media design. From mobile technology applications to interactive environments, there is a growing demand for designers, digital explorers who can navigate the new media world – fostering innovation at the intersection of design, culture, business and technology. You will get hands-on learning in a world-class environment that prepares you for an exciting career in the buzzing world of multimedia design with a curriculum that stresses creativity while specifying solid design fundamentals.

While you develop creative skills in content creation, interface design and multimedia technology, you will also be grounded in the essential skills of multimedia production such as user-experience, multimedia copywriting, principles of backend programming, interactive application authoring and interactive media project management.

Throughout the course, you will be constantly exposed to client-based projects that equip you with real-world working experience. Your competitive edge will be sharpened by participating in international and local competitions, while our Student Internship Programme will increase your exposure to professional practices, both in Singapore and overseas.

> Interactive media is becoming ever more relevant in the world of media, information and communication today, and Temasek Design School's fervent commitment to this area of study is a sign of foresight. The past few years' graduates have shown a marked leap in skills and talent.
>
> Kevin WY Lee
> Creative Director/Partner
> Spoon : Creative / Productions

Career Opportunities

You have just got to be at the head of this rising wave of Singapore's expanding creative economy! As a graduate of our course, you could be earmarked for career opportunities that could include interactive media designers/producers, web designers, interactive media project managers, information architects, content developers, interface designers and visual communicators.

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). Short-listed candidates are usually required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. They may also show certi cates 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Interactive Media Design

Application: Please refer to the section on ‘Admission and Requirements’. For international students, please refer to the section on ‘Information for International Students’.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIM1336	Applied Graphic Design	1	3
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DIM1345	Ideation	1	3
DIM1358	Multimedia Essentials	1	3
DIM1360	Project 1: IMD	1	6
DPS1018	Design History & Culture	1	3
DVC1506	Typography	1	3
DVC1541	Fundamentals of Digital Photography	1	3
CID2Z01	Fundamentals of Interactive Multimedia*	2	3
CID2Z02	Interactive Application Development*	2	3
CIT2Z04	Interactive Scripting*	2	3
DIM2337	Elements of Multimedia	2	3
DIM2339	Interface Design 1	2	3
DIM2347	Interface Design 2	2	3
DIM2359	Fundamentals of Interactive Authoring	2	3
DIM2361	Project 2: IMD	2	6
DIM2362	Project 3: IMD	2	6
DMV2605	Video Fundamentals	2	3
CID3Z01	Interactive Web Application*	3	3
DIM3357	Designing for Mobile Devices	3	3
DIM3363	Project 4: IMD	3	6
DMP3010	Major Project: IMD	3	9

** Subjects offered by Temasek Information Technology School*

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIA1221	Colour & Light	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1002	Marketing for Designers	1	3
DPS1003	Brand Building Strategies	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	3	3

Cross-Disciplinary Subjects

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

Moving Images

Royston Tan shouldn't get too comfortable, you think. That's because you are feeling this itch to go one better than him. You critique every film you watch – be it live motion or animation – and you know you can do better than what you currently see around you. Not only that. You have a passionate love affair with your battered old Handicam, but lament the lack of top-end facilities to do a top notch job. Well, we happen to know a place where your prize-winning celluloid dreams can materialise. And it's a pretty cool place to be too.

Our course offers you the skills to be a professional, but still lets you own your creative voice. How many other vocations out there are this generous?

We will sharpen your essential skills in story development, conceptualisation, design skills and professional practice in a world-class learning environment conducive for nurturing industry-ready designers and media professionals for the vibrant media and entertainment industries. You will be among the first in the region to go HD (high definition) with the use of high-end equipment from cameras down to editing and post-production suites. With mega industry partners working in tandem with us, you can rest assured knowing you'll receive a quality education that is on par with the best in the world.

In the New Economy, the winners are the specialists. As such, you will be offered the opportunity to specialise in either Animation or Video (subject to availability of classes). In Animation, you will learn more about design and the production aspects of 2D and 3D animation. In Video, you will acquire production and editing skills for both video and broadcast media. For both, you will be constantly exposed to client-based projects that will equip you with real-world working experience. You sharpen your competitive edge by participating in international and local competitions, while the Student Internship Programme increases your exposure to professional practices, in Singapore and overseas.

> Not just knowledge, but also wit and wisdom;
> Not just technical competency, but also life skills;
> Not just quality of education, but also holistic well-being;
> Temasek Design School embodies all these and more.
>
> Vincent Lim
> Director
> Big Communications Pte Ltd

Career Opportunities

All ready for your close-up? Your moving images skills will enable you to have challenging and rewarding careers in the growing film, media and entertainment industries, not only here in Singapore, but internationally. You might just be the next big-name 2D/3D animator, video and broadcast producer/director, digital post-production editor, or commercial producer/director. In any case, you should be quite in demand with your qualifications.

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). Short-listed candidates are usually required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. They 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-6
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 78 credit units
Option Subjects	: 15 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Moving Images

Application: Please refer to the section on 'Admission and Requirements'. For international students, please refer to the section on 'Information for International Students'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS1013	Communicating Design Ideas	1	3
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DIM1345	Ideation	1	3
DPS1018	Design History & Culture	1	3
DVC1541	Fundamentals of Digital Photography	1	3
DMV1601	Creative Storytelling	1	3
DMV1602	Digital Media Fundamentals	1	3
DMV1603	MOI Project 1	1	6
DMV2604	Animation Fundamentals	2	3
DMV2605	Video Fundamentals	2	3
DMV2606	Audio 1	2	3
DMV2607	Storyboarding & Project Pitching	2	3
DMV2609	Scriptwriting Essentials	2	3
DMV2610	Film Language	2	3
DMV2611	Video Editing	2	3
DMV2612	Audio 2	2	3
DMV2635	MOI Project 2	2	6
DMP3009	Major Project: MOI	3	9
DMV3621	Motion Graphics	3	3
DMV3630	MOI Project 3	3	6

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Video Option			
DMV2614	Video Production 1	2	3
DMV3622	Acting	3	3
DMV3626	Screen Writing	3	3
DMV3633	Advanced Video	3	3
DMV3636	Video Production 2	3	3
Animation Option			
DMV2613	Animation 1	2	3
DMV3631	Drawing for Animation	3	3
DMV3632	Character Design & Animation	3	3
DMV3634	Advanced Animation	3	3
DMV3637	Animation 2	3	3

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIA1221	Colour & Light	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1002	Marketing for Designers	1	3
DPS1003	Brand Building Strategies	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	3	3

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: a coffee mug that reflects emotion; a life-saving device for drowning swimmers; and a quirky chair-cum-coffee table. In fact, the three products just mentioned are all international award-winning designs from our students. And as for you, you could very well be our next award-winning product designer – if you sign up with us.

The course teaches and grooms design specialists to design speci c products and services that enrich our lives. If you have ever had dreams of improving the design of a teapot (so that it wouldn't dribble), or redesigning an MP3 player for older folk (that's more age-friendly), or simply designing a bicycle for the physically challenged - this course is just right for you.

Here, you'll get to understand human-centred behaviours, wants and needs, and you will apply this knowledge to your creative design solutions. The course will also give you a better understanding and knowledge of engineering principles, human factors / ergonomics, aesthetics, industrial materials and processes and digital computer-aided design. 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 exciting and fast-moving profession where the boundaries and de nitions are blurring. There are new and unlimited opportunities in the profession, and our product and industrial design course will prepare you well to meet the many challenges posed by the dynamic and creative industry out there today.

Career Opportunities

Our graduates are simply needed everywhere. In diverse elds such as consumer electronics, medical products, entertainment design (special effects, set design, concept design, model/prop design), 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.

> 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 Global Account Director/
> Senior Global Design Director
> Philips Design

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). Short-listed candidates are usually required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. They may also show certi cates 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Product & Industrial Design

Application: Please refer to the section on 'Admission and Requirements'. For international students, please refer to the section on 'Information for International Students'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DPD1401	Human Centred Design	1	3
DPD1402	Perspective & Freehand Drawing	1	3
DPD1404	Design Methodology	1	3
DPD1405	Model-Making	1	3
DPD1406	Materials & Processes	1	3
DPD1407	Engineering Drawing	1	3
DPS1018	Design History & Culture	1	3
DPD2408	Cultural Anthropology	2	3
DPD2409	Product Visualisation	2	3
DPD2412	Product Engineering Principles	2	3
DPD2413	CAID 1	2	3
DPD2419	PID Project 1	2	6
DPD2420	PID Project 2	2	6
DMP3011	Major Project: PID	3	9
DPD3415	CAID 2	3	3
DPD3416	Product Prototyping	3	3
DPD3417	The Business of Design	3	3
DPD3418	Advanced Product Design	3	9
DPD3421	PID Project 3	3	6
DPS3007	Design Academic Paper	3	3

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIA1221	Colour & Light	1	3
DIM1307	Multimedia Fundamentals	1	3
DMV1601	Creative Storytelling	1	3
DPS1002	Marketing for Designers	1	3
DPS1003	Brand Building Strategies	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	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

Whether it is in a department store, or at a hotel or restaurant, you are always seeing corners that can be better utilised, or complaining that the layout and the displays can be better executed. Why can't we do it like they do in London, New York or Paris? Well, maybe its time to put your career where your mouth is, and dive into a field of study that is just right in your area of interest!

This course will teach you many useful and professionally-driven skills such as spatial design, communication graphics, visual merchandising and environmental branding. And these will not be academic exercises too! You will have to roll up your sleeves and be on the ground researching emerging lifestyles, culture and the latest concepts in design.

To do all that, you must be a talent with a keen sense of observation, the determination to conduct accurate and meaningful research, probe and analyse. And we will groom your ability to communicate design ideas and concepts within an interior environment in areas related to retail and hospitality including F&B, leisure and entertainment related spaces.

Throughout the course, you will be constantly exposed to live projects that will equip you with real-world working experience. This project-based approach will further develop skills such as decision making, critical thinking, creativity, problem solving and innovation.

Career Opportunities

Upon graduation, you will have the employment and skill pro le to step con dently into the retail and hospitality design industry. You will be able to work with retail houses, shopping malls, hotels, resorts, entertainment centres, food and beverage outlets etc. Or you may even choose to work in design rms specialising in retail and hospitality projects. After acquiring working experience, you can even establish a design practice offering a range of design services to clients locally and regionally.

> This course is in line with the emerging demands of the building industry and responds to increasing specialised needs of the design professionals in the interior design sector.
>
> Derek MacKenzie
> Partner
> Designphase

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). Short-listed candidates are usually required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. They may also show certi cates 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.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

To be eligible for selection, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Retail & Hospitality Design

Application: Please refer to the section on 'Admission and Requirements'. For international students, please refer to the section on 'Information for International Students'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1104	Introduction to Visual Merchandising	1	3
DIA1204	Digital Architectural Drafting	1	3
DIA1219	Form Exploration	1	3
DIA1226	Material & Finishes	1	3
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DPS1018	Design History & Culture	1	3
DRH1701	Architectural Drawing	1	3
DRH1702	RHD Project 1	1	6
DIA2205	Architectural Design Theory	2	3
DIA2209	Environmental Technology	2	3
DIA2210	Interior Elements & Construction	2	3
DRH2703	Architectural Rendering	2	3
DRH2705	RHD Project 2	2	6
DRH2706	RHD Project 3	2	6
DRH2707	Communication Graphics	2	3
DIA3216	Interior Design Practice	3	3
DMP3016	Major Project: RHD	3	9
DRH3708	Digital Modelling	3	3
DRH3709	RH Planning & Design	3	3
DRH3711	Consumer Psychology	3	3
DRH3712	RHD Project 4	3	9

Diploma Subjects - Elective Subjects

Students will be required to select and undertake three subjects from the list below:

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIA1221	Colour & Light	1	3
DIM1307	Multimedia Fundamentals	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1002	Marketing for Designers	1	3
DPS1003	Brand Building Strategies	1	3
DVC1560	Visual Presentation Essentials	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	3	3

Cross-Disciplinary Subjects

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

Visual Communication

Have you ever looked at an advertisement and told yourself that you could have done it better? Or seen a professional photo, and said you could have taken that too? If you've ever wondered if you'd be great at designing print or TV ads, packaging, digital media and other print work, well, maybe you should stop wondering and explore – for real – our course. It's for people who are different: out-of-the-box thinkers who dare go against the grain to make their passion for design an essential part of their lives.

You would like to be a professional in the exciting and fast-paced creative industry. You love graphic design, advertising, photography and illustration. You look forward to be taught by professionals who are both experienced and passionate about their work and their specialisations. You welcome being immersed in a creative environment that is awash with colours, typography, images and messages that stir your passion towards design.

Here in Visual Communication, you will encounter the birth of creative concepts, taking them all the way through the processes of re nement, implementation and presentation. You will master the fundamental skills and knowledge relating to creative thinking, drawing, digital media, graphic design and design studies. You will gain an intellectual understanding of visual information and messages and you will learn how to manage, and turn these abilities and knowledge into memorable and effective solutions. Above all, you will constantly be challenged to think creatively and be encouraged to truly innovate.

Book smart is not street smart, and so we have a well-managed Student Internship Programme to give you invaluable hands-on industry exposure. You will also experience study trips, industry visits, workshops and seminars that will enhance your learning and provide a holistic perspective of the design profession.

> This course consistently produces leading graduates who are highly passionate, creative and credible in this highly challenging field of advertising and graphic design.
>
> Kevin WY Lee
> Creative Director/Partner
> Spoon : Creative / Productions

Career Opportunities

You are going to be faced with an array of possible career opportunities as you take your rst steps into the buzzing, adrenalin-driven world of advertising, graphic design, branding, photography and multimedia agencies. And yes, many of our graduates have also successfully founded their own studios and agencies. How cool is that!

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). Short-listed candidates are usually required to attend an interview to which they should bring samples/portfolios of their work in art and design exercises or other media of expression that show evidence of creativity and imagination. They may also show certi cates 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.

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, you must also have sat for at least one of the following subjects: Additional Combined Science, Art, Art & Design, Higher Art, Biology, Combined Science, Chemistry, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants who have partial or complete Colour Appreciation Deficiency should not apply for this course.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 75 credit units
Option Subject	: 15 credit units
Elective Subjects	: min 9 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Visual Communication

Application: Please refer to the section on 'Admission and Requirements'. For international students, please refer to the section on 'Information for International Students'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 3)	1	1
DCS2014	Professional Communication for Design	2	3
DSI2019	Student Internship Programme	2	8
DCS3015	Communicating Design Arguments	3	2

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DIM1342	Drawing Essentials	1	3
DIM1343	2D Art Fundamentals	1	3
DIM1344	3D Art Fundamentals	1	3
DIM1345	Ideation	1	3
DPS1002	Marketing for Designers	1	3
DPS1018	Design History & Culture	1	3
DVC1509	Digital Essentials	1	3
DVC1542	Photography	1	3
DVC1543	Typography & Layout	1	3
DVC1550	History of Graphic Design	1	3
DVC1551	Applied Illustration	1	3
DVC1560	Visual Presentation Essentials	1	3
DVC2514	Advertising	2	3
DVC2527	Prepress Technology	2	3
DVC2528	Pixel Collage	2	3
DVC2545	Packaging Forms & Graphics	2	3
DVC2546	Integrated Project	2	6
DVC2547	Web Design	2	3
DVC2553	Studio Lighting	2	3
DVC3532	Advertising Campaign	3	3
DVC3534	Publication Design	3	3
DMP3014	Major Project: VSC	3	9

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Graphic Design Option			
DVC2518	Information Design	2	3
DVC2520	Kinetic Typography	2	3
DVC3536	Corporate Identity	3	3
DVC3548	Brand Packaging	3	3
DVC3555	New Media Design	3	3
Illustration Option			
DVC2552	Expressive Illustration	2	3
DVC2554	Book Illustration	2	3
DVC3556	Digital Illustration	3	3
DVC3557	Advanced Illustration	3	3
DVC3558	3D Illustration	3	3
Photography Option			
DVC2521	Product & Advertising Photography	2	3
DVC2561	Alternative Photographic Techniques	2	3
DVC3559	Fashion Imaging	3	3
DVC3562	Narrative Photography	3	3
DVC3563	Experimental Digital Photography	3	3

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1149	Textiles Manipulation & Design	1	3
DIA1221	Colour & Light	1	3
DMV1601	Creative Storytelling	1	3
DPD1405	Model-Making	1	3
DPS1003	Brand Building Strategies	1	3
DPS2005	Consumer Lifestyle Research	2	3
DPS3007	Design Academic Paper	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

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

DAD1102 Fashion Merchandising
This subject will cover the characteristics and systems of the apparel industry - the importance of consumer's in uence 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 oor 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 will guide 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 bres 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 identi cation 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 nd personal ways of designing on paper and fabric. The printshop 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 nal 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 gures.

DAD1151 Apparel Production 1
This subject will introduce you to the fundamentals of at 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

DAD2113 Sourcing & Costing
This module is 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
Advanced CAD 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 pre-production planning to product completion. It relates to issues associated with the concepts of product performance and quality, and the functional organisation of apparel manufacturing rms. It also articulates the involvement of various professionals in product development up to the manufacturing stage and includes eld 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 modi cation 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 gures such as Open-to-buy, Dollar Planning and Control, Mark-ups/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 collection for the apparel industry. The process will include the conceptualising and production of two different lines of clothing.

DAD2153 Apparel Production 2
This module builds on Apparel Production 1 in the progressive development of at pattern drafting techniques and sewing skills. It will also build on your pro ciency 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 xture 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 xture design for visual merchandise presentation to generate optimum sales.

DAD3127 Quality Assurance in Textile & Apparel
You will learn 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, colourfastness failure, snaps failure, and wet garment processing.

DAD3157 Apparel Production 3
This module integrates a sense of professionalism with the development of at 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.

DAD3159 Retail Project
This subject will involve your setting up of a retail outlet as a project for better understanding of retail concepts and operation procedures. The participation of and industry contacts will help you get ready for the job market.

DAD3160 Events Management
This module 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
A rich and sophisticated language repertoire is required for articulating and presenting design ideas. This subject explores the creative use of language features such as denotation, connotation, metaphors, tone and style in a variety of genres. It further analyses the discourse modes of description, narration and exposition as used in the design context. Next, it focuses on the application of these language features in written and oral presentations for expressing, examining and supporting design concepts in design critiques.

DCS2014 Professional Communication for Design
Effective written and oral communication play a critical role in advancing a design professional's career. Designers are expected to be persuasive in articulating their design ideas in order to secure design contracts and employment. This subject focuses on the use of persuasion in two broad areas of professional communication for designers: client relationship and career self-promotion.

DCS3015 Communicating Design Arguments
The culmination of the design process is the communication of design solutions. This subject focuses on the argumentation process that leads to the articulation of informed, rational and creative design solutions. You will identify key issues in a client's brief, conduct research, analyse ndings, de ne design directions and rationalise design solutions through written and oral presentations.

DED1801 Environment Design Project I
This exploratory project introduces the fundamentals of environmental design and allows you to exercise your creativity in the realm of design in relation to a selected small-scale external environment. Issues like concept, form, composition, and aesthetics are focused on. You are to create an experiential urban landscape in the selected context.

DED1803 Environmental Elements
This subject introduces the various elements that need to be considered for the holistic design of the external environment. Topics include street furniture and urban elements, urban lighting and water features design. These topics will form the foundation necessary for Environment Design.

DED2804 Theory of Landscape Design
This subject provides understanding of landscape design in parks, built environment and open spaces in relation to tropical climates. You will be introduced to how nature can be integrated into the character of built form through the use of materials, scale, texture etc, within the process of managing, planning and physically changing the landscape.

DED2805 Tropical Horticulture
This subject provides you with an opportunity to explore various garden designs. You will be able to apply this knowledge to your learning in an assignment which requires you to demonstrate basic understanding of the relationship between plants and the tropical environment.

DED2806 Environment Design Project 2
In this project, you will choose a small scale site within Singapore. The main focus of this project is site analysis and response. In addition, issues like universal design, culture and identity, way- nding, etc. will be introduced. This is a creative project that encourages you to think out-of-the-box while grappling with basic but real issues.

DED3808 Environment Design Project 3
In this project, environmental issues like sustainability, hydrology, solar power, recycling, comfort zones, energy conservation, etc. will be introduced. Group research and case studies will be used as a learning tool. This project will be moderately large-scale in a local context.

DED3809 Theory of Urban Design
Some of the issues introduced through this subject include perceptions of urban environments and methodologies of urban design in terms of architecture, urban spaces and places. For assignments, you are expected to explore and document a certain area in a city. You may visit historical and modern districts, urban and rural areas, gardens, parks and so on. A written report is a course requirement.

DED3810 Environmental Control
This subject covers the basic scienti c principles of environmental control of both internal and external aspects of buildings. Topics will touch on issues like external and climatic effects such as humidity and condensation, comfort conditions, lighting, air movement, solar radiation and acoustics.

DED3811 Construction Technology
You will be introduced to the technical application and combination of various materials to form built constructs in the external environment. Technical drawings, speci cations and detailing will focus on customisation to the harsh external environments. A hands-on assignment to produce an object will further enhance application.

DED3812 Environment Design Project 4
In this project, theoretical issues like high density living, conservation, image-ability, revitalisation, etc. will be tackled. You are introduced to brief formulation in preparation for your Major project. This project focuses on the formulation of innovative, yet workable ideas that can solve urban issues using a large scaled project as a vehicle. Overseas site visits are encouraged.

DIA1202 Media Techniques & Presentation
This subject introduces the various visualisation and presentation techniques for interior space designing. It will cover basic drawing skills and media presentation for communicating the interior design process from conceptualisation to production.

DIA1204 Digital Architectural Drafting
The subject introduces the fundamentals of Computer-Aided Drafting in generating architectural drawings. It will emphasise interior/architectural drawing conventions and documentation.

DIA1219 Form Exploration
The subject focuses on the sculpting of the building form and its implications on interior space design. It addresses issues pertaining to spatial concepts, resolution of geometry and form-function as vehicles for the study of the built environment that leads to the development of spatial design vocabulary amongst students.

DIA1221 Colour & Light
The subject covers the theory and application of colour and light to the built environment to create speci c responses. It leads 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.

DIA1902 Human Environment Planning
This subject deals with issues affecting human environment. It includes the fundamentals in planning environments to t human characteristics and capabilities.

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 the evaluation of 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
The subject introduces you to and focuses on 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.

DIA2209 Environmental Technology
The subject aims to develop visual understanding and familiarity with technological systems and advances that support environmental conditions in a built environment. It integrates the sensory requirement of interior spaces in terms of human comfort, safety and behavioural experiences to environmental support systems, through an investigation of the relationship between systems technology and interior environments.

DIA2210 Interior Elements & Construction
This subject provides you with the basic understanding of the principles involved in the construction of interior space. It includes the application of general construction methods to the detailing of interior elements.

DIA2211 Exhibition Studies
This subject deals with the exhibition as an event. It provides an understanding of various approaches in developing concepts for exhibitions and event promotions.

DIA2223 Interior Architecture & Design Project 1
The 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 Interior Architecture & Design 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.

DIA3214 Digital Space Simulation & Techniques
The subject explores the means and alternatives for design presentations using digital modes in the simulation of spatial and environmental reality. You will be exposed to computer software and hardware applications to effectively communicate design ideas and concepts.

DIA3216 Interior Design Practice
The subject provides an understanding of the interior design profession as it relates to its management within the regulatory and legal framework of the practice. It will equip you with general knowledge of regulations and legal guidelines.

DIA3225 Interior Architecture & Design Project 3
This subject takes the issue-driven approach through which you will be given opportunities to explore issues pertaining to interior architecture through investigation and studies. You will also be required to generate design solutions to address the identi ed issue or environmental factors.

DIM1342 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 different tones it gives on different surfaces.

DIM1343 2D Art Fundamentals
This subject introduces the fundamentals of art through a variety of 2D techniques and media. The subject focuses on inculcating visual and observational skills through self-expression to allow emotions to be re ected by way of visualisation and illustration.

DIM1344 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.

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 uidity 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 great variety of concepts. You will also develop and demonstrate your aesthetic awareness and design sensibility.

DIM1336 Applied Graphic Design
Application of basic graphic design principles is intrinsic to the creative process of interactive media design. This subject introduces you to the fundamental principles of graphic design. You will learn to integrate these design principles and elements to create effective communication. Emphasis is placed on assisting you towards creating the desired visual effects using relevant software for interactive media design.

DIM1358 Multimedia Essentials
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.

DIM2337 Elements of Multimedia
This subject builds upon Multimedia Essentials. You will apply the basics of designing interactive media for the Web and 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 apply these elements together with advanced authoring techniques to enhance the interactivity of web projects.

DIM2339 Interface Design 1
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. The subject examines the choice of appropriate styles and graphic treatment for the intended audience, and the use of conceptual models for creating appropriate user experience.

DIM 2347 Interface Design 2
This subject builds upon Interface Design 1. It develops and deepens your understanding of GUI and user experience design. It focuses on the user interface of content, applications and media delivered on different platforms, and explores related emerging technologies. It also examines different ways of user testing and the use of prototypes in the interface design process.

DIM3357 Designing for Mobile Devices
This subject introduces you to 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.

DMP3009 Major Project: Moving Images
This subject takes the form of a personal project. It allows you to propose one that showcases the abilities you have developed throughout the Moving Images course, re ecting your specialisation within the video or animation option. 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 are given freedom to develop your individual projects within a supervisory relationship with your lecturers. In addition to developing your individual project, you will document and re ect upon your project outcomes.

DMP3010 Major Project: Interactive Media Design
This subject takes the form of a nal project where you consolidate and apply previous knowledge and skills to conduct a sustained and systematic investigation in an area of special interest which you determine. You are required to formulate, plan, manage and execute a substantial body of work that exempli es creative independence, strong conceptual thinking and technical pro ciency in the area you have chosen. In the process, you gain practical exposure to professional studio practice and project planning and management issues; strengthen your self-con dence; as well as grow in maturity as a designer. The desired outcome of this project is a production that is original, imaginative and comprehensive that meets or exceeds prevailing design industry expectations.

DMP3011 Major Project: Product & Industrial Design
This subject introduces you to a self-motivated project that includes a written thesis on the rationale, design research approach and personal design viewpoints, in a problem- based approach. The design and development process will be systematically recorded in a journal which

will evolve into a detailed thesis. It will cover 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 ie, Apparel Design, International Merchandising or Visual Merchandising in a self-initiated project. You are to initiate, research, plan and execute an individual body of work showcasing conceptual thinking and pro ciency 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 re ective of your professional aptitude.

DMP3013 Major Project: Interior Architecture & Design
This subject will provide you with the framework to experience the organisation, management and coordination of a design process based on a self-initiated and comprehensive interior design project brief. The scope of the subject includes the inception and exploration of design ideas and concepts within a speci c 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.

DMP3014 Major Project: Visual Communication
This project provides the opportunity for you to apply previous knowledge and skills acquired in solving a self-initiated project. Employing one or more of the disciplines taught, you will initiate, plan and execute an individual body of work showing creative independence, strong conceptual thinking and pro ciency in areas which you would like to pursue 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 re ective of your professional aptitude.

DMP3015 Major Project: Environment Design
This is a core requirement for all students in Environmental Design. You will select and de ne the subject matter for the project, together with guidance from your supervisor. In this, you should fully utilise the understanding and competencies gathered throughout the duration of the course to produce a major project of quality and standard. You are encouraged to select topics that are current to the industry's needs.

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 eld of retail and hospitality design. The scope of the subject includes the inception and exploration of design ideas and concepts within a speci c context.

DMV1601 Creative Storytelling
This subject looks at how to express an idea through a story that an audience will nd engaging. You will be introduced to elements such as story structure, character(s) and con ict 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.

DMV1602 Digital Media Fundamentals
This subject introduces various aspects of working with digital media, such as types of le compression, fundamentals of digital audio-visual media, ltering and compositing of digital media.

DMV1603 MOI Project 1
This project allows you to apply and consolidate your knowledge, culminating in organising an exhibition. You will be introduced to the design process and research strategies within the framework of the problem-solving methodology. You will develop these processes and strategies for your own design practice.

DMV2604 Animation Fundamentals
This subject provides an introduction to the principles of animation. Basic principles of creating the illusion of movement and life through animation are covered. The subject explains the need to apply knowledge of physics (eg, weight, friction, force and gravity) into drawings in order to get the correct visualisation of life in animation.

DMV2605 Video Fundamentals
This subject introduces basic technical and aesthetic concepts in video production. It includes the application of storytelling skills in the production of the video. You will experience the extensive preparation involved in planning, lming and editing through working in a student production team which will be responsible for preparing a complete production.

DMV2606 Audio 1
This subject introduces you to basic audio recording techniques, studio equipment setup, recording process, digital audio workstation and microphone techniques. Through these learning processes, you will acquire the vocabulary, basic studio recording skills, producing and mixing techniques.

DMV2607 Storyboarding & Project Pitching
This subject provides skills to translate stories into storyboards for production and client presentation. The subject introduces the concept of project pitching and develops the basic skills required in selling an idea to clients during the pitching session. It aims to better prepare you for the industry by guiding you in understanding the worth of your content and enabling you to market your ideas effectively.

DMV2609 Scriptwriting Essentials
This subject gives an overview of scriptwriting for an audio-visual medium and how to design scripts for different video and television programme formats. It also provides an understanding of how to apply scriptwriting principles and skills in order to develop the script for a message or a story.

DMV2610 Film Language
This subject will provide you with an understanding of the Im structure as a medium of communication. You will be introduced to the narrative techniques of Im and the design of the communicative language of the Im form.

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.

DMV2612 Audio 2
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.

DMV2613 Animation 1
This subject introduces the animation option of the Moving Images course. It develops your ability to apply effective narrative in animation, building upon basic animation skills covered in the Animation Fundamentals module. You experience the techniques and skills necessary to convey a story through movement, performance of your animated characters, and facial animation.

DMV2614 Video Production 1
This subject focuses on video production using the single camera format. It teaches both theoretical and practical aspects of a production from the pre-production to the post-production stages. This subject is designed to familiarise you with the processes and tools associated with video production. Emphasis is placed on single camera techniques with focus on professional attitudes.

DMV2635 MOI Project 2
This subject takes the form of a project and allows you to apply and consolidate your knowledge acquired in other subjects. You will work in teams to produce collaborative video and animation works. The project culminates in a public screening of the resulting productions. Through this subject, you will develop practical application of audio visual narrative techniques, and gain presentation and teamwork skills. You will also enhance your research skills through continued development and understanding of major design movements as well as apply your understanding of the fundamental design principles.

DMV3621 Motion Graphics
This subject explores the production of broadcast motion graphic design. It focuses on animated motion graphic sequences incorporating graphic elements, structure and onscreen aesthetics for time-based media. The emphasis is placed on designing motion graphics that are both appealing and functional for the broadcast media. The subject develops skills in typography, compositing, colour correction, layering, type animation, masking, pacing, rhythm of edit and the integration of video and animation elements.

DMV3622 Acting
This subject introduces you to the acting craft. You will learn the process an actor undertakes to achieve a performance. It will develop your ability in aspects of acting such as vocal presentation, concentration and physical movement, to effectively transform yourself into a character.

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

DMV3630 MOI Project 3
This subject allows you to apply skills and knowledge acquired in other modules to the execution of an animation, video or hybrid production. You will be encouraged to develop your management and research skills, and to apply professional production standards to your work.

DMV3631 Drawing for Animation
This subject develops your traditional animation drawing skills focusing on techniques for creating sequences of images with economy of line, appeal, drama, and effective staging.

DMV3632 Character Design & Animation
This subject introduces the design and animation of characters. You will focus on the connections between a character's back-story, personality, role within a narrative and the appearance and movement of the character.

DMV3633 Advanced Video
This subject provides a platform for you to engage in self-directed learning in the video specialisation. You will be involved in concept development through research and encouraged to explore advanced techniques and processes of video production.

DMV3634 Advanced Animation
This subject provides a platform for you to engage in self-directed learning in one area of animation specialisation. You will be involved in concept development through research and encouraged to explore advanced techniques and processes in aspects of traditional or computer animation based on their own interests.

DMV3636 Video Production 2
This subject provides an understanding of the organisation and skills involved when producing a television programme in a multi-camera set-up. You will apply and develop your design and technical skills to direct and produce studio-based programme segments.

DMV3637 Animation 2
This subject develops skills and knowledge obtained in the Animation Fundamentals and Animation 1 to enable you to produce complete animation pieces of a high quality. You will work in 2D traditional animation, 3D computer animation or a combination of both.

DPD1401 Human-Centred Design
This module is about designing for people and it gives a holistic overview of human factors as applied to design. It introduces the importance of understanding the complex web of factors involving the user in the process of design. These factors centre on the physical, cognitive, social and cultural considerations that in uence the user's interaction with the surrounding environment and system.

DPD1402 Perspective & Freehand Drawing
This module emphasises drawing through observation, using basic drawing media. It will provide 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.

DPD1404 Design Methodology
This module introduces you to the design process that forms the basic framework for all design projects. Through this process, the anatomy of a project will be revealed. Ways of understanding, exploring, generating, crafting and nally the way of presenting a product or product system will also be shown. Emphasis will be given to methods of generating innovative solutions to challenges or problems that may not even exist.

DPD1405 Model Making
Model-making introduces you to the basic processing of wood, metal, plastics and safe operations with workshop tools and machinery. You will acquire a working knowledge of speci c materials and competency in joining different materials together in the right methods of construction and nishing of 3D models.

DPD1406 Materials & Processes
This subject develops your understanding of materials, their characteristics, properties and fabrication techniques. You will learn production processing, jig making and component assembly, as well as how and what to specify on the nished models or prototypes.

DPD1407 Engineering Drawing
Engineering drawing emphasises the designer's approach on the layout of design solutions in a disciplined drawing format, which can be used by others to realise manufacturable products. You will learn to draw in orthographic, axonometric, oblique and isometric projections.

DPD2408 Cultural Anthropology
In recent years, the role of the designer has evolved from not only that of a semiotician but also that of a visionary. Currently, he has to depend heavily on his sensitivities towards the ever changing environment. He perceives what is around and reacts by absorbing, interpreting and reinventing it. This requires a process which brings together a multitude of disciplines within design itself and other elds, mainly psychology, sociology, anthropology and ethnography.

DPD2409 Product Visualisation
This module develops a range of presentation techniques and skills to produce strong and informative product design concepts, using a variety of art media and surfaces.
You will experiment and try out different techniques, media and digital tools to effectively enhance and communicate the design ideas visually.

DPD2410 Product & Industrial Design Project 1
This project looks at design methodology, with an emphasis on research, problem identi cation 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 mock-ups, using a variety of media and workshop technologies. Issues of functionality, practicality and product semantics and aesthetics will be discussed and re ned.

DPD2411 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.

DPD2412 Product Engineering Principles
This module 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.

DPD2413 Computer-Aided Industrial Design 1
This subject introduces you to basic computer 3D modelling, material creation and rendering. You will be taught to create and evaluate concepts and ideas from 3D surface models, assign surface materials and produce still photo-realistic images for presentation.

DPD3414 Product & Industrial Design Project 3
Project 3 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.

DPD3415 Computer-Aided Industrial Design 2
This module enables you to ideate and generate concepts onscreen using the appropriate digital tools. You will further explore digital CAD modelling, 3D animation and general downstream practices.

DPD3416 Product Protyping
Rapid prototyping is fast becoming a standard industrial practice within the industrial design and manufacturing arena. This subject, product prototyping introduces you to basic 3D downstreaming and rapid prototyping. You will be taught to create and evaluate 3D surface models and produce physical highly nished 3D prototypes.

DPD3417 The Business of Design
This subject introduces you to the form and structure of various business organisations, nancial 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 you a contextual understanding of the professional practice of design in an entrepreneurial environment.

DPD3418 Advanced Product Design
This subject introduces you to a professional level of work attitude and 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.

DPS1002 Marketing for Designers
This subject provides you with an understanding of marketing principles typically adopted by businesses through a process of observation research. It raises your awareness of the make-up of the internal and external environment of a business, helping you relate the goals of the business to the opportunities and threats it faces.

DPS1003 Brand Building Strategies
You will understand the make-up brand by looking through multiple lenses, from the corporate, personal, social and cultural perspectives. Learning activities allow you to discuss how a brand comes to mean what it is today to consumers, and enables you to think about possible brand re-design directions for the future.

DPS1018 Design History & Culture
This subject introduces you to cultural ideas and imageries corresponding to design movements in design history after the industrial revolution. Through the introduction of history and culture, you will develop an awareness and appreciation of culture and issues pertinent to the design eld and gain a broader understanding of how design affects and is affected by the culture of human society.

DPS2005 Consumer Lifestyle Research
This subject aims to provide you with qualitative research tools to explore and understand the lives of consumers from their perspective. You research real and virtual worlds exploring consumption practices, consumers' product and brand experiences, and emerging lifestyle trends.

DPS3007 Design Academic Paper
This subject provides an opportunity for you to conduct in-depth study into an area of personal interest or your area of design specialisation as preliminary investigation for your Major Project. It covers academic inquiry, argumentation and writing skills. You will write an academic paper and present your thesis. The subject is recommended for students who intend to pursue university studies.

DRH1701 Architectural Drawing
This subject introduces the various visualisation techniques for interior space designing. It covers basic methods of constructing geometric drawings, orthographic projection and perspective drawings for communicating interior design process from conceptualisation to production.

DRH1702 RHD Project I
The subject serves as a platform to introduce students 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.

DRH2703 Architectural Rendering
This subject introduces the various presentation techniques for interior space designing. It covers basic techniques that utilise different media to render form.

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/signages ,lighting, space planning, consumer culture and trends, etc. You are required to generate design solutions to address the above.

DRH3708 Digital Modelling
The subject introduces and focuses on the use 3D modelling software as a design tool to create three-dimensional designs, as well as aiding in your visualisation to effectively present your ideas and concepts.

DRH3709 RH Planning & Design
This subject introduces the basic planning and design principles that relates to retail and hospitality speci c spaces. Hotel and store planning concepts will be covered.

DRH3711 Consumer Psychology
The subject focuses on the study of human responses to product and service related experiences. It covers areas related to consumer behaviour, lifestyle and trends.

DRH3712 RHD Project 4
This subject focuses on the issue-driven approach. You will be given opportunities to explore issues pertaining to design in the realm of retail and hospitality though investigation and studies. You are also required to generate design solutions to address the identi ed issue or topic chosen.

DVC1509 Digital Essentials
Software application is integral to the creative process in the design industry. This subject introduces you to basic knowledge and skills needed to use the computer as a desktop publishing tool. You will learn to apply skills in a drawing software for creating graphics, an image editing software for retouching graphics, and a page layout software for executing publication tasks. This knowledge is needed to facilitate design execution.

DVC1541 Fundamentals of Digital Photography
This subject introduces the basics of digital photography. It provides you with the necessary theoretical knowledge and practical skills required to apply the basic principles of digital photography in image recording and image management, using the digital camera. Areas of interest include camera types, framing the image, characteristics of light, time control, correct exposure, angle of lens and depth of eld.

DVC1542 Photography
This subject introduces you to the fundamentals of using the camera. It provides you with the necessary theoretical knowledge and practical skills required to apply the basic principles of photography in image recording and management in black and white, colour slides, and digital images using the 35mm SLR and the Digital SLR camera. Topics include camera manipulation such as aperture and shutter speed control, exposure and lens angling and image reproduction like character and ISO sensitivity of different lms, digital capture and aspects pertaining to the depth of eld.

DVC1543 Typography & Layout
This subject incorporates essentials, beginning with the historical development of Type, after which three aspects leading to its effective application in design will be explored. Firstly, technical aspects of Type like structure, legibility, measurement, spacing and production will be covered. Secondly, appreciation of Type like selecting type, forms and formats, creating grid structures, organising space, visual hierarchy and communication will be examined. Thirdly, the application of Type

will focus on your discussion and analysing design problems and provide sound solutions con dently. It is recommended that you be familiar with software programmes like Freehand, Illustrator and Photoshop.

DVC1550 History of Graphic Design
This module 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, photography and design.

It also follows the changes of graphic design from traditional to mechanical forms and nally examines its present state in the electronic age.

DVC1551 Applied Illustration
This subject is designed to explore the basic principles of developing illustrations. Each student's own creativity, self-expression, and visual communication skills are stressed.

Emphasis is placed on clarity of concepts, professional responsibilities, and the developmental procedures.

DVC1560 Visual Presentation Essentials
The subject interprets concepts and ideas visually through constant exposure to imagery found in magazines, posters, advertising campaigns and outdoor advertising. It formulates the design solution through the expression of fonts and its usage in combination with an adept knowledge of the right imagery. The awareness of fonts and its usage will be emphasised together with an appreciation of the photographer's eye for details and composition. Type sensitivity, visual composition and aesthetic acumen are the key components in the language of cutting edge graphic design, and visual presentation is that integral part of the overall graphic language that all designers should be familiar with.

DVC 2514 Advertising
This introductory module in advertising endeavours to anticipate the challenges and in uences posed by the mass media on society, and to impart the thinking, methods, skills and processes. It also extends skills and new insights beyond the in uence of the interactive electronic age. A rm foundation is provided upon which a more advanced and progressive knowledge and skills in advertising can be built. It covers the importance of target marketing to ensure effective advertising for a consumer product or a service industry. Through a series of assignments, you will explore and discuss the appropriateness and effectiveness of visual images and messages in the creation of persuasive advertisements.

DVC 2518 Information Design
This subject provides the opportunity to understand the basic role of a graphic designer to communicate information through various design elements. The ability to formulate the right mixture of photo images and two-dimensional text is vital to communicate successfully. The nal communication ought to be clear and understandable without loss of intended message. Logo design and instructional symbol and diagram are integral parts of this subject.

DVC2520 Kinetic Typography
This subject provides a thorough and detailed examination on the application of typography. The important principles in animating type, integration of text and images, organisation of sequential information and its relationship to the content provide you with an in-depth study of applying typography to speci c design problems. It allows you to have an overview in understanding treatment of solving graphics in a time-based media. It has avenue to push play type to a higher level where more experimentation of ideas will be explored. This subject keeps up with the fast development of digital technology and image production.

DVC2521 Product & Advertising Photography
This subject provides you with the necessary theoretical knowledge and practical skills required to operate the medium-format camera and the 4 x 5 view camera, for making a variety of photographic illustrations comprising of products, food and beverage, portraiture, commercial prints to be used for magazine and press advertisements, brochures, posters, annual reports, record covers, calendars and other visual communication purposes.

DVC2527 Prepress Technology
This subject focuses on the crucial stages of offset production which follows after the design approval. It provides the basic and essential understanding for designers to ensure smooth production process and de ned designer's preproduction responsibility. It also gives you the opportunity to learn different production possibilities for nal printing enhancement.

DVC2528 Pixel Collage
This subject introduces you to use digital illustration as a design option to communicate ideas and concepts. You will learn software techniques to combine typography with photographic and painted elements to create meaning to a concept. It allows you to experiment using 3D software with other imaging software to create design solutions.
This knowledge will enable you to solve various design problems in the advertising industry.

DVC2545 Packaging Forms & Graphics
This subject explains the basic functions of packaging as well as its role as a marketing tool, such as expressing brand values, product differentiation, and addressing lifestyle patterns. You will learn the different types of materials and structural forms and how to construct them, the visual principles that are essential in conceptualising and designing a package, applying the aesthetic components to affect consumer choice, and to address shelf impact. In the process, you will become sensitive to environmental and legal issues in packaging and design.

DVC2547 Web Design
This subject aims to anticipate the challenges and in uences posed by the web media on the web society - people who depend on information gathering through the World Wide Web. It will cover the importance of target marketing to ensure effective web content development for consumer, corporate and service industry. Through a series of exercises, you will explore and utilise the skills, and discuss the appropriateness and effectiveness of visual images used in creating web contents. It will create messages through persuasive web interaction and will obtain vital information ef ciently through interactivity elements such as e-buttons, ash animation and the dynamic contents of HTML and DHTML.

DVC2552 Expressive Illustration
The subject involves further experience with unifying elements of design, colour, drawing and technique to create a successful illustration in a personal manner. Intensive investigation will be conducted on the techniques and principles presented in previous Applied Illustration course, with a continuing emphasis on concept and its relationship to the many elements of an illustration.

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 in the studio. You will also learn the use of umbrella, soft box, cone, snoot, re ectors, block cards, etc.

DVC2554 Book Illustration
This subject explores various production ideas from the one-of-a-kind book to mass-produced books. Instruction will be given on a wide range of printing techniques which will be integrated with the projects. Studio exercises will help you discover the visual world within your own writing and nd literary inspiration through drawing. Rethinking the conventions of the comic strip, for example, with the goal of nding a personal drawing style and narrative voice is the aim of this class. It covers every stage in the creation of a picture book — developing an idea and writing it; creating sequential, storytelling images; and book layout.

DVC2561 Alternative Photographic Techniques
This subject introduces you to lm 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 will also broaden your range of creative expressions through the different processes in this subject.

DVC3532 Advertising Campaign
This subject continues the study of Advertising into applying conceptual thinking, methodologies, and processes in the creation of an effective advertising campaign.

It emphasises the origination and generation of ideas and the crafting of creative advertising from a written strategy to a nished campaign series. Discussions extend to cover techniques in visualisation and copywriting. You will follow and undertake an intensive sequence of assignments that emphasise on analytical and rational implementation of appropriate strategies for print and the electronic media.

DVC3534 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. Also included will be issues of organising and managing information, the systems by which it is coded and classi ed, as well as integrating contextual text with images. You will gain up-to-date working knowledge that covers every aspect of production activity of a corporate publication; the client-designer relationship and related issues pertaining to professional practice.

DVC3548 Brand Packaging
This subject introduces the relationship between packaging and branding. You will become aware of how packaging on one level, serves to sell a product through a combination of structural shape and graphics. On another level, you will also learn why the aesthetic language of packaging design must also project or work within a total brand vision. Through a process of analysing existing brands, you will learn the meaning and functions of branding. You will then apply this knowledge to a project to revitalise or reposition a product to ful ll the company's branding vision.

DVC3536 Corporate Identity
This subject focuses on the 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 an effective corporate identity manual and guidelines.

DVC3555 New Media Design
This subject provides you with the basic skills and knowledge of design to facilitate the integration of print, illustration, photography, web and multimedia design. It focuses on the experimental use of various media to ful ll differing design objectives. The programme starts with the ability to de ne existing design problems and possible solutions. You will then be directed to explore new communication strategies that will facilitate expansion of your design rationale. Topics taught within existing print projects will be reconceptualised and extended into books, toys, apparel design, etc.

DVC3556 Digital Illustration
This subject explores and de nes the visual formulas that occur in popular images. You will then reinvent and tweak these formulas, 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.

DVC3557 Advanced Illustration
This subject liberates you from the conventions and clichés of traditional storytelling. It is an intensive workshop that encourages experiments in character, content and narrative form. You will be encouraged to develop a successful approach to creating consistent personal imagery. Whether taking a representational, stylised or fantastic approach, using traditional or digital media, you will be encouraged to expand your picture-making skills by considering how the use of light, line, colour, value and composition can be most effectively employed to get across a unique point of view.

DVC3558 3D Illustration
This subject examines fundamental anatomical structures as they apply to drawing and painting the gure and animals, both real and imagined. Discussions about methods and materials will include everything from plasticine to found materials: whatever conveys the designer/illustrator's ideas. There will be demonstrations of various techniques like mold-making, paper and cardboard construction and casting in plaster.

DVC3559 Fashion Imaging
This subject focuses on what fashion image is, and its relationship to fashion. It examines the approach to fashion imaging, and every element that creates the myth of fashion image: trend and styling, hair and make-up, location, lighting, model behaviour. You will explore issues on the fabrication of fashion statement. Studio and portrait lighting skills will be taught in this subject.

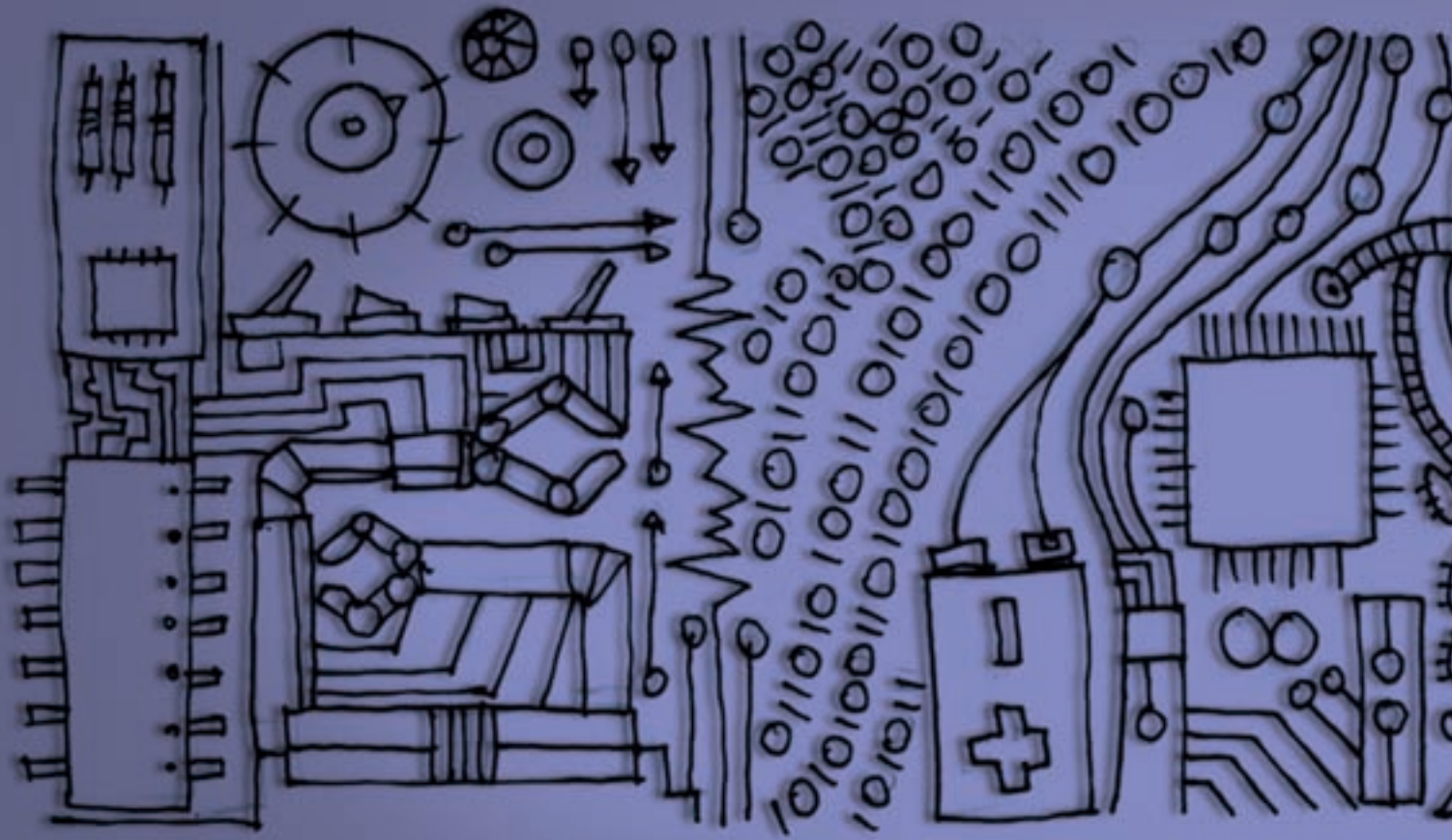
DVC3562 Narrative Photography
This subject deals with the narration of a story through photographic images. It compares the effectiveness of a group of photographs to tell a story or a topic within a concept with the different interpretations that a single picture may bring about. The subject matter for example, may include the study of a building structure, a family, a group of people, or a story/ movie. This will also include situations found in photojournalism, photo essays or documentaries. This subject attempts to develop thinking skills in creating concepts that will generally narrate a story better than a single image.

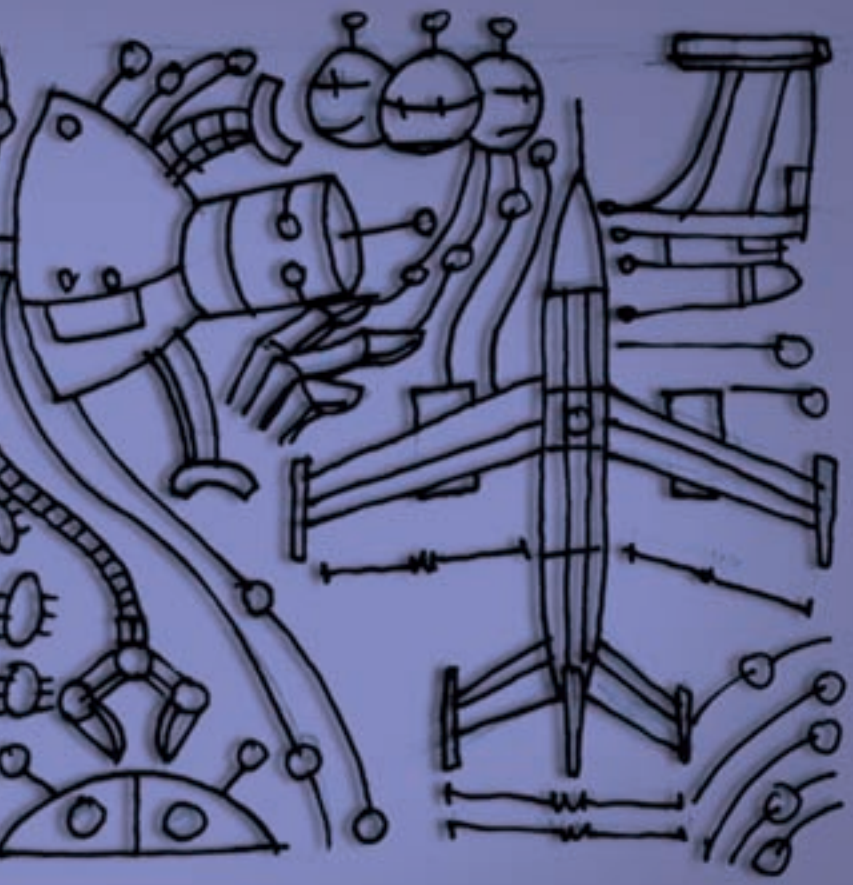
DVC3563 Experimental Digital Photography
This subject covers topics beyond basic digital imaging. With digital technology, images can be generated and experimented with using software like Photoshop whereby advanced photo retouching or digital imaging can be done. The current industry trend is also to have images "manufactured" this way rather than just "photographed" through the use of the traditional camera. Within this subject you have to evaluate fundamental concepts like realism and representation in the imaging context, and how this relates to the new realm of the digital age.

GCD1001/1002/1003
Applied Principles for Effective Living (APEL)
Applied Principles for Effective Living is TP's Core Programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extropersonal Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (ie, attitudes, skills, knowledge) towards the Principles for Effective Living, hence laying the vital foundation for their life-long success. The principles introduced in this programme are largely derived from applied psychological studies.

** 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 changes.*

Temasek Engineering School





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Temasek Engineering 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, Problem-based Learning, and a practical hands-on approach.

We offer twelve exciting diploma courses — all of which provide you with a broad based curriculum that opens the doors to exible career opportunities in Singapore's new knowledge-based economy. The Electives/Options in our courses allow you to specialise in exciting elds with great prospects, and yet get a broad-based training in other popular engineering areas. In short, there is specialisation with exibility, so as to give you an edge in a dynamic and rapidly evolving world of engineering.

Competency Units

With the most up to date facilities and equipment, coupled with highly effective teaching methods, Temasek Engineering School is in the position to ensure that you get a wholesome education that prepares you to meet even the most demanding challenges of the 21st century.

Our strength lies in our ability to be forward-looking to ensure that we remain at the cutting edge of technology. Seventeen CUs have been set up to undertake R&D work in collaboration with industry, so as to further our expertise in specialised technological areas. These CUs help to enhance the professional and academic capability of our staff and students.

3D Media Studio

The Studio was set up in partnership with IM Innovations. It provides the expertise to explore, develop, and promote competencies in 3D computer graphics and applications, and aims to enhance the capabilities of students and industry professionals by providing them with the relevant training in these areas. The Studio, also the exclusive Authorised Training Centre in ASEAN for the “Cinema 4D” and “BodyPaint 3D” software, offers consultancy services and acts as a test-bed for the industry in 3D related projects.

Biomedical Informatics Competency Unit

This CU focuses on the development of group audiometry, assistive technologies for hearing impaired and biomedical instrumentation projects. It is equipped with an acoustic chamber and audiometers to conduct hearing tests. The core competence of this CU includes R&D in areas such as group audiometers and hearing aids; bioinformatics and biotechnology equipment and tools; and medical instruments for measurement of physiological signals of human beings.

Business Process & Systems Engineering Competency Unit

Business today involves being engaged in a range of key skills. This CU aims to develop and proliferate technologies for development, training and industry collaboration through the Major Project cum Student Internship Programme scheme, as well as speci c subject projects. Other areas of focus for this CU include systems engineering, enterprise process mapping, data mining, franchising, branding and customer relationship management.

Communication Systems Competency Unit

The task of this CU is to keep pace with the fore-front of the communication technology by collaborating with the industry, to work on the latest and emerging wireless technology, such as WiFi, Bluetooth, Zigbee. It has collaborated actively with industry partners like SMRT, SingTel and Singapore Police Force in these technology areas. This CU also operates and manages all satellite systems within Temasek Polytechnic, including the satellite connectivity to the Asian Internet Interconectivity Initiatives (AI3), a pan-Asian satellite network for project collaborations with overseas partners.

Computer Visualisation & Design Competency Unit

This Unit integrates engineering and information technology via the creation of new knowledge, training tools, innovative products and processes. It has undertaken several signi cant collaborative projects with the industry and educational institutions. These include the eLearning applications, virtual reality simulation, multi-channel 3D stereoscopic visualisation, web 3D, virtual prototyping, photorealistic rendering and animation.

Digital Media Technology Competency Unit

Digital technology has brought a remarkable impact in the eld of media and communications, particularly in the broadcast industry. New standards are formulated to govern this emerging eld. To meet the new demands in this area, this CU focuses on the research in digital broadcasting applications, such as digital audio and video broadcastings, digital TV and digital video streaming. With newly acquired state-of-art equipment, it is currently involved in a project to develop a low cost multimedia box for the home.

Fuel Cell Application Centre

This CU deals with the power of solid-state electronics and the extraction of its optimal methods of ef ciency. It has modern research facilities with state-of-the-art equipment for conducting applied research in switching or analogue power circuits and fuel cell technology relevant to industrial needs. It focuses on advanced switch mode power conversion with handling power rating up to 1 kW, as well as fuel cell technology and its applications.

Info-Communications Competency Unit

Info-communications today focuses signi cantly on software technology to make crucial deliveries. This is especially so for the service and security industries, and organizations which depend on quick turnaround. This CU focuses on developing e-business services which encompass the front-end deliveries, web development, mobile / wireless communications and Internet applications. To meet the growing demands for infotainment, the Unit specialises in multi-media applications such as speech, image and video processing, and the development of mobile and computer gaming.

Integrated Facility Design & Management Competency Unit

Modern buildings, soaring sky-scrapers and the integrated resorts, are just some of the exciting new developments in Singapore. The Integrated Facility Design and Management Competency Unit supports the diploma in training the professionals of the future as well as lends its expertise and know-how in managing modern infrastructures and facilities, using the latest techniques and management skills to improve economic and operational ef ciency.

Intelligent Building Competency Unit

The built environment industry is one of the pillars of the Singapore economy and fuelled by the buoyant economy, more and more facilities are designed as “smart” and “green” buildings. The Intelligent Building Competency Unit focuses on the two areas within the built environment context which is intelligent building systems and building performance. Many students have bene ted through its involvement with the industry on various local and overseas projects.

Intelligent Systems Competency Unit

The fulcrum group for microcontroller-related design in the School, this CU is well equipped with facilities to support most industrial projects. It offers enriching experiences beyond the classroom and curriculum for students and staff and is also the driving force behind the School’s training centre for microchip devices. The Unit’s main area of competence is in embedded system applications with digital / analogue and electro-mechanical interfacing.

Internet Technology Competency Unit

Making Internet technology more accessible is the focus and challenge for this CU. Enterprise web applications, wireless and mobile applications and embedded technologies are the core technologies that it focuses on. Its main objective is to develop and proliferate these technologies for R&D, training, and industry collaboration. The CU also collaborates with both MNCs and government-linked companies like Philips Electronics, Motorola Electronics, Singapore Technologies, NUH on various projects in the above technology areas.

Mechatronics Design Competency Unit

This CU develops and shares expertise related to mechatronics system design and automation. It carries out R&D to integrate motion control for automation, process control and simulation and machine vision systems. The CU emphasises product and process automation technologies, and offers customised training courses to upgrade the skills of the local workforce in the relevant technology area.

Mobile Computing Competency Unit

This CU focuses on enterprise web, wireless and mobile applications. It emphasises applied research development and consultancy in mobile computing technology through collaborations with research organisations and industry partners in the areas of education, info-communication and logistics.

Rapid Prototyping Technology Competency Unit

This CU transforms concepts and ideas into real and functional products. 3D CAD systems and subtractive / additive prototyping machines are used to design and develop physical prototypes from plastic and sheet metal parts for concept testing and engineering evaluation. It collaborates with the industry in the areas of product design and development, industrial design, human factors engineering, product visualisation and prototyping, solid CAD modelling, design analysis and simulation, rapid tooling, sheet metal forming and vacuum casting.

Robotics & Automation Competency Unit

This CU aims to develop applied research capabilities in robotics technologies relevant to the industry’s needs, specialising in the R&D of hardware, rmware and software of mobile and autonomous robotics. It is also equipped with various robotic research platforms providing applied research on legged robots, behaviour-based robots, mechanical gripper, robotic hand and multi-agent system.

Temasek Microelectronics Competency Unit

Microelectronics has emerged with more stringent, complex and competitive standards, as it moves towards the nano era. This CU upgrades and matches capabilities in these standards while focusing on the main area of Micro-Electro-Mechanical Systems (MEMS). The focus on MEMS technology includes the design, fabrication, and the testing and application of silicon and polymer MEMS, with the primary emphasis on sensors. Fabrication and testing are carried out in a Class 100 Cleanroom equipped with the latest tools for wafer processing and testing.

Aviation Management & Services

Over one billion people and 40 percent of the world's manufactured exports are transported by air each year, making the aviation business one of the key drivers of world trade. It is an international business that spans six continents, linking cities, islands and communities worldwide.

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 third passenger terminal, the proposed Seletar Aerospace Park, and the new Airbus A380 super jumbo aircraft.

This diploma course, the first of its kind in Asia, will equip you with a broad range of specialised skills and knowledge of the various aviation domains, from managing a world class airport and understanding what it takes to run the best airline in the world, to acquiring knowledge of the inner workings of a "spaceport" that will one day send passengers beyond the stars.

> There is a strong growth of air travel in the region. This course will better prepare school leavers for a career in the aviation industry and will fill the gap in meeting the strong demand for trained personnel in the air transport industry in Singapore and the region.
>
> Goh Chin Ee
> Director, Singapore Aviation Academy
> Civil Aviation Authority of Singapore

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, marketing management and engineering with airport operators, airlines, aircraft leasing and aerospace companies, aviation consulting and investment companies, civil aviation authorities, ground handling companies, logistics companies and facility planning and management companies.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 110 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 138 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Aviation Management & 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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
EAM1002	Airport Administration	1	4
EBT1003	Facilities Operations & Maintenance	1	5
EBZ1001	Business Fundamentals	1	5
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPL1003	Problem-Solving & Process Skills	1	2
EAL2002	Management of Air Cargo	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	Air eld Systems 1	2	4
EAT2004	Air eld Systems 2	2	4
EBD2001	Total Building Performance	2	4
EBD2005	Security & Surveillance	2	4

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBM2004	Project Management	2	4
EBZ2006	Service Quality & Management	2	4
EAL3001	Airline Operations & Management	3	4
EBM3003	Financial Management & Forecasting	3	4
EBM3004	Business Continuity Management	3	4
EMP3001	Major Project	3	12

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
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.

Biomedical Informatics & Engineering

The development of medical devices, from a simple hearing-aid to an X-ray machine; the search for a cure for human diseases; or even the very pills that you pop into your mouth – these are all part of the biomedical life sciences, which is now seeing a rapid boom worldwide.

This course involves the application of information technologies and engineering skills to the biomedical sciences. You will be equipped with knowledge in the interdisciplinary fields of biomedical engineering and informatics. Under the Economic Development Board's "Industry 21" initiative, the life sciences are slated to be one of the four 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, medical informatics, 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.

> We note that graduates from this course have a strong understanding of the medical products produced by our company. Their knowledge of the human anatomy helped them in assisting surgeons during middle-ear implant processes, and also in communicating with medical professionals.
>
> George Wong
> Director
> Bovis Medical Scientific Pte Ltd

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, commercial firms and hospitals.

There are excellent career prospects in life science research centres, providing support in bioinformatics and 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.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Note: Applicants with partial or complete Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	
Core Subject	: 102 credit units
Elective Subject	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 138 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Biomedical Informatics & 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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
EBS1003	Biochemistry	1	4
ECC1002	Networking Fundamentals	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
EPL1003	Problem Solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
EBI2001	Introduction to Bioinformatics	2	5
EBS2002	Molecular Genetics	2	5
EBS2003	Biomedical Physics	2	4
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
ECT2001	Circuits & Control Systems	2	5
EBI3003	Medical Imaging & Visualisation	3	4
EBI3004	Audiometry & Hearing Devices	3	4
EBS3001	Biomechanics	3	4
EBS3003	Clinical Laboratory Equipment	3	4
EEE3001	Advanced Electronics	3	4
ESE3006	ASP.NET Web Programming	3	4

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
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

In today's dynamic business environment, many jobs entail a fine blend of skills from different disciplines. This unique course equips you with both business and engineering skills, so as to give you a competitive edge in the job market.

This course equips you with systems thinking as well as facilitation skills, both of which are essential in today's market environment. Upon graduating, you will possess the unique ability to integrate business and engineering principles to serve on cross-functional teams that drive improvements and productivity towards organisational excellence.

Career Opportunities

Armed with the skills of these disciplines, you will be able to nd employment in both manufacturing and non-manufacturing sectors in the industry. Career opportunities include jobs as administration of cers, customer service of cers, assistant engineers, engineering assistants, technical sales executives, quality assessors, service quality of cers, technical buyers, quality consultants, management systems executives, customer accounts executives, quality management representatives, training executives and project management executives.

Equipped with business process mapping and systems engineering skills, students from this course have been able to contribute to the overall improvement and productivity of CPG FM and its subsidiaries over the last two years. This achievement is testimony to the rigour and relevance of the curriculum that was structured to prepare them for a dynamic and diversified workplace. The cross-disciplinary approach has also helped them to work effectively across various functions in an organisation.

Jeffrey Chua
Managing Director
CPG Facilities Management Pte Ltd

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	
Core Subject	: 103 credit units
Elective Subject	: min 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 135 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Business Process & Systems 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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
EDR1003	Engineering Drawing	1	4
EEE1006	Engineering Fundamentals	1	5
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
ESZ1001	Systems Concepts	1	4
ESZ1002	Quantitative Methods	1	4
EBZ2002	Marketing Intelligence	2	4
EBZ2003	Engineering Economy & Management Accounting	2	5
EPZ2001	Organisational Behaviour	2	4
EPZ2002	Management of Information in Organisations	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 Logistic & Simulation	3	4
EMP3001	Major Project	3	12
EPZ3001	Customer Relationship Management	3	4
ESZ3001	Supply Chain 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

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
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 not found only on your desktop or lap. They 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.

Singapore is a fast growing IT hub in the Asia-Paci c region. The latest Intelligent Nation 2015 Master Plan initiative by the Government has created an array of high-tech careers that requires specialised computer engineering and software skills. Computer Engineering is a combination of two disciplines: electronics engineering and computer science. This combination is highly industry-relevant and used in all sectors of the new economy.

This course will prepare you to be amongst the few who are fully pro cient in integrating both hardware and software applications. It provides knowledge and skills in computer systems, networking, IT and embedded control systems. The topics covered are challenging and interesting. They encompass software and Internet programming, microcontroller technology, computer game programming, computer networking and security, and computer systems and architecture.

> The TP students who were attached to us for their internship understood our requirements quickly; they designed and implemented the solution with minimal guidance and supervision. The final work they produced was of high quality, and we are very impressed by their aptitude and technical skills.
>
> Jean Tao
> Project Manager
> Rockwell Automation Pte Ltd

Career Opportunities

Due to the versatility of the skills sets acquired, the course opens doors to wider and better job opportunities in the electronics, infocomm and IT industries. Upon graduation, you can look forward to careers such as web-based application developers, embedded system applications engineers, computer technologists or network system specialists. You will also be able to nd employment in areas of electronic and computer systems design and software development as well as in the customer support, sales and marketing sectors.

If you are interested to further your studies, many local and foreign universities offer advanced standing to our graduates for their degree courses. In particular, Nanyang Technological University has granted our graduates direct entry into the second year of degree programmes in Computer Engineering, Computer Science and Electrical & Electronic Engineering.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 101 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 137 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in 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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
ECC2007	Networking Infrastructure	2	4
ECC2008	Network Administration	2	2
EEE2002	Electronic Systems Design	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ESE2004	Object-oriented Programming	2	5
ECC3004	Enterprise Web Application	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
Students must take a minimum of any 2 modules from the list below, to make up a minimum of 8 credit units.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECC3001	Internetworking Technologies	3	4
ECC3008	Network Security	3	4
ESE3007	Computer Game Programming	3	4

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
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

Electronics forms part of the everyday operation of homes, offices and factories. Satellite communications, sophisticated defence mechanisms, medical tools, money transfers and video systems are all made possible through electronics. This course will therefore give you tremendous flexibility and width – a springboard to a wide array of career options.

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 Internet technology and networking, embedded systems, and communication and control. You will also develop effective communication skills for the workplace, skills in project planning and an appreciation of quality techniques. The training and curriculum are kept current and relevant through the many industry-accredited or certi ed modules offered.

To be better prepared for the advancements in technology, second-year students will choose to take one of the following Elective Options, each of which comprises at least ve subjects. These Elective Options are: Aerospace Electronics, Programming & Networking, Mobile Computing, Photonics, or Robotics.

The two batches of Electronics students are among the top industrial attachment students that I have. They are well motivated and eager to learn. I am really happy with their ability and the support given from the Polytechnic's teaching team.

Assoc Prof Wang Han
Division of Control & Instrumentation
School of Electrical & Electronic Engineering
Nanyang Technological University

Career Opportunities

Singapore's vision is to become a world-class electronics hub with global leadership in manufacturing solutions, as well as in the creation and management of new products, applications and markets. With lower-end businesses shifting out as a result of increasing costs, over-capacity and the falling prices of products, new jobs will be created for knowledge-workers as the industry moves into high-end design work, wafer fabrication and marketing activities.

You will have excellent prospects in aerospace electronics, telecommunications, instrumentation and control, computing, and consumer and industrial electronics. Your job areas may include product designing and testing, process and quality improvement, maintenance, marketing, sales and services.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

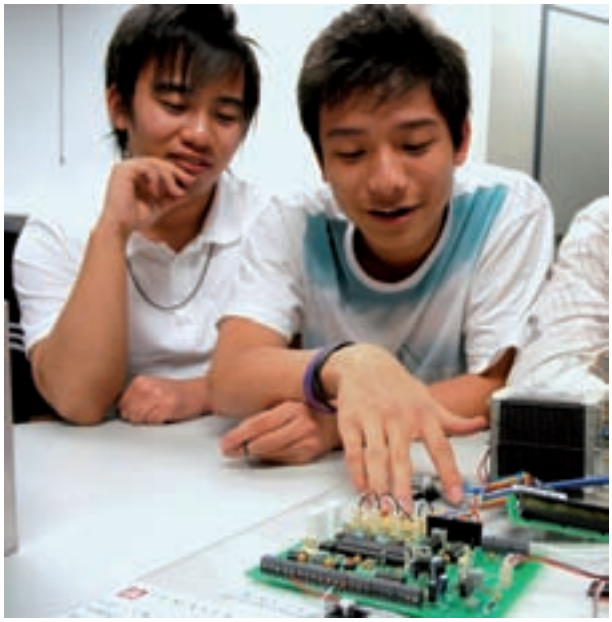
Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 55 credit units
Clusters & Options Subjects	: 52 or 53 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 135 or 136 credit units



At A Glance

Duration: 3 years full-time

Qualification: Diploma in Electronics

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
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
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
EMP3001	Major Project	3	12

Diploma Subjects - Clusters & Options Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Aerospace Electronics			
EAE1001	Airworthiness Administration & Human Factors	1	4
ECC1002	Networking Fundamentals	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
ETW2001	Telecommunication Principles	2	5
EAE3003	Electrical Fundamentals & Systems	3	5
EAE3004	Instrument Systems	3	5
EAE3005	Servomechanism & Electronics	3	5
EAE3006	Radio Fundamentals & Navigation Systems	3	5
Programming & Networking			
ECC1002	Networking Fundamentals	1	4
ECC2007	Networking Infrastructure	2	4
ECT2001	Circuits & Control Systems	2	5
EEE2001	Integrated Circuit Applications	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ETW2001	Telecommunication Principles	2	5
ECC3001	Internetworking Technologies	3	4
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EQE3X02	Quality Engineering	3	4
ESE3003	Software Engineering	3	4

Diploma Subjects - Clusters & Options Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Photonics			
ECC1002	Networking Fundamentals	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
ETW2001	Telecommunication Principles	2	5
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EPH3001	Principles of Photonics	3	4
EPH3002	Optical Communications	3	4
EPH3003	Optical Devices	3	4
EQE3X02	Quality Engineering	3	4
Robotics			
ECC1002	Networking Fundamentals	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
ETW2001	Telecommunication Principles	2	5
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
EQE3X02	Quality Engineering	3	4
Mobile Computing			
ECC1002	Networking Fundamentals	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
ESE2006	Mobile Computing Applications	2	5
ETW2001	Telecommunication Principles	2	5
ETW2005	Wireless Technology	2	4
EEE3001	Advanced Electronics	3	4
EEE3004	Power Electronics & Drives	3	4
EQE3X02	Quality Engineering	3	4
ESE3006	ASP .NET Web Programming	3	4

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
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.

Info-communications

The Internet, interactive digital media, smart phones, SMS, MMS, e-commerce, m-commerce, PDAs and 3.5G are some of the buzz words you may be familiar with today. These technologies are all enabled by info-communications, a specialised field that harnesses the use of IT, communications and broadcasting technologies.

This course empowers you to tap into the huge market for new services and applications in the info-communications industry, which is essentially a combination of both IT and telecommunications technology. It enables you to learn and harness the latest infocomm technologies, and apply them to meet Singapore's evolving communication needs.

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, the 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.

To be further prepared for the infocomm industry, nal-year students will choose one of two Cluster Electives: Wireless Technology or Computer Game Programming & Web Services.

> Our ambition at Philips is to develop meaningful concepts which bring healthcare to people's doorstep. In this respect, TP has been a great partner in demonstrating to healthcare providers what is possible both today and in the near future.
>
> Pierre Kil
> Senior Innovation Consultant and Site Director
> Philips Applied Technologies – InnoHub
> Philips Electronics (S'pore) Pte Ltd

Career Opportunities

Info-communications will continue to be a high growth sector as well as a key driver of the manufacturing, commerce and trading sectors. The Infocomm Development Authority of Singapore has projected that the demand for infocomm professionals will escalate sharply to 250,000 over the next decade. IDA is commited to growing Singapore into a dynamic global infocomm hub. As a graduate from this course, you can therefore look forward to many excellent job opportunities, such as an e-services solution developer, a wireless Internet service developer, network system engineer, IT security specialist, multimedia system engineer, web services specialist, or even a computer gaming developer.

Minimum Entry Requirements

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

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 93 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 133 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Info-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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
ECC1003	Web Application Project 1	1	4
ECC1004	Web Application Project 2	1	4
EEE006	Engineering Fundamentals	1	5
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
ETW1001	Telecommunications & Systems	1	4
ESE2004	Object-oriented Programming	2	5
ECC2005	Internet Computing Applications	2	5
ECC2007	Networking Infrastructure	2	4
ECC2009	Advanced Mobile Computing Applications	2	5
EMC2004	Internet Appliances	2	4
ESE2006	Mobile Computing Applications	2	5
ETW2005	Wireless Technology	2	4
ECC3008	Network Security	3	4
EMP3001	Major Project	3	12
ESE3001	Database Management System & Design	3	5
ESE3006	ASP .NET Web Programming	3	4

Diploma Subjects - Elective Options Subjects taken at Level 2.2 (Choose 1)

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ESE2005	Advanced Java Programming	2	4
ECC3001	Internetworking Technologies	3	4

Diploma Subjects - Cluster Electives taken at Level 3.2 (Choose 1 cluster)

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Cluster 1 - Wireless Technology			
ETW3001	Mobile Communications	3	4
ETW3003	Broadband Technologies	3	4
Cluster 2 - Computer Game Programming & Web Services.			
ESE3007	Computer Game Programming	3	4
ESE3008	Web Services Development	3	4

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
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 Design & Management

New facilities such as the integrated resorts at Marina City Centre and Sentosa, scheduled to be completed by 2009, will require trained and highly skilled professionals to manage their physical, aesthetic, environmental and engineering aspects. This course empowers you to tap into this lucrative new market.

Soaring skyscrapers, sail-shaped condominium towers, integrated resorts with classy hotels, luxury shops, fancy restaurants, conventions centres, glitzy casinos and a new waterfront promenade – these will be part of the new city centre at Marina Bay, expected to be completed by 2009. Together with the integrated resort on Sentosa, these new facilities are expected to change the way Singaporeans work, live and interact. In view of this, there is a need for skilled manpower to manage the new infrastructure.

As the first diploma course in Singapore dealing with facilities management for the hospitality and tourism industry and the integrated resorts, this course will provide you with wide and varied career opportunities.

> When both Integrated Resorts (IRs) in Singapore are completed and fully operational, we will see a strong demand for specific skill sets in resort management. I am glad to note that TP has introduced this diploma programme which covers hospitality and tourism facility management, as well as design and development relating to IRs. This course will certainly prepare our students for the management and maintenance of IR facilities.
>
> Dr Tan Kok Heng
> Managing Director
> Corporate Marketing
> United PREMAS Ltd

Career Opportunities

Armed with multi-disciplinary skills, you will find employment in the facilities management or design teams in the hospitality and tourism, events and convention, leisure and entertainment, integrated resorts, business and financial sectors.

The competencies you will develop in this course will enable you to obtain numerous certifications recognised by the industry along with your diploma. 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 Project Management (PM) certification by the Project Management Institute (PMI), as well as the Certification in Business Continuity Management by the Business Continuity Management Institute (BCMI).

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA -

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 110 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 138 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Integrated Facility Design & Management

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'.

Image source: Marina Bay Sands

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
BHT1010	Introduction to Hospitality & Tourism	1	4
EBD1001	Computer-Aided Design & Building Speci cations	1	5
EBD1002	Integrated Resort Design & Development	1	4
EBM1002	Real Estate Business	1	4
EBT1003	Facilities Operations & Maintenance	1	5
EER1001	Electrical Services for Facilities	1	4
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPL1003	Problem-solving & Process Skills	1	2
EBD2001	Total Building Performance	2	4
EBD2002	Human-Centred Design & Ergonomics	2	4
EBD2005	Security & Surveillance	2	4
EBM2004	Project Management	2	4
EBM2005	Fire & Life Safety Management	2	4
BHT2003	Club & Resort Business	2	4
BLR2002	Attractions Management	2	4
EME2001	Air Conditioning & Hydraulics	2	4
ESZ2003	Management Systems & Assessment	2	5
EBD3001	Space Planning	3	4
EBD3002	Lighting & Acoustics	3	4
EBM3001	Energy Audit	3	4
EBM3003	Financial Management & Forecasting	3	4
EBM3004	Business Continuity Management	3	4
EBT3008	Intelligent Building Management System	3	4
EMP3001	Major Project	3	12

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
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

Intelligent Building Technology

Just as we have smart phones today, so too, we have smart buildings! These buildings make use of intelligent building technology, such as fingerprint-activated door locks, pre-programmed temperature and lighting settings, wireless remote operation of windows, curtains and household appliances, and power-saving ventilation.

New buildings today, including the integrated resorts and the business and nancial centre at Marina Bay with facilities for business, entertainment and recreation, all come with the latest intelligent features. Existing buildings are also continually being retro tted and upgraded to meet the growing demands of businesses and people, as well as the need to conserve water and energy. It is envisaged that the prevailing growth in the building industry will continue to fuel the demand for intelligent buildings in the retail, of ce and residential property sectors.

This course allows you to tap into this growing trend, by training you to manage intelligent building systems and facilities, including eco-centric designs, advanced systems, intelligent gadgets, automation, security, and infocomm applications, as well as providing you with the fundamentals in project management and design.

> This course provides students with a strong fundamental knowledge which will enable them to understand and implement the newly-developed technologies that are available in today's intelligent building system market.
>
> Victor Ong
> Deputy General Manager
> CNA China Co Ltd

Career Opportunities

Along with your diploma, you will also earn a Fire Safety Manager certi cation, awarded by the Singapore Civil Defence Force. You can look forward to rewarding careers in the building automation, project management or building design industries, as automation/project/sales engineers, project executives, property of cers, building specialists and designers, or re safety managers.

You will also be well positioned to further your quali cations by getting a bachelor's or master's degree at university in the elds of intelligent buildings, electronics and electrical engineering, facility management, property and real estate management, and architectural-related programmes.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA -

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 109 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 137 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Intelligent Building Technology

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'.

Image source: Urban Redevelopment Authority, Singapore

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
EBD1001	Computer-Aided Design & Building Speci cations	1	5
EBT1002	Intelligent Workplaces & Dwellings	1	4
EBT1003	Facilities Operations & Maintenance	1	5
ECC1002	Networking Fundamentals	1	4
EEE1001	Circuit Analysis	1	6
EEE1005	Digital Fundamentals	1	5
EER1001	Electrical Services for Facilities	1	4
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPL1003	Problem-Solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
EBD2001	Total Building Performance	2	4
EBD2005	Security & Surveillance	2	4
EBM2004	Project Management	2	4
EBM2005	Fire & Life Safety Management	2	4
EBM2006	Building Management Systems	2	4
EBT2005	Building Control Systems	2	4
EBT2007	Building Sensors & Actuators	2	4
EMC2001	Microcontroller Technology	2	5
EME2001	Air Conditioning & Hydraulics	2	4
EBM3001	Energy Audit	3	4
EBM 3004	Business Continuity Management	3	4
EBT3007	Intelligent Devices & Systems Integration	3	4
EMP3001	Major Project	3	12

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
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

Interactive Media Technology – New!

You have probably come across 3-dimensional (3D) graphics and simulation – these are widely used in educational materials, advertising, websites, presentations, and even in movies! These are all part of interactive digital media that is fast gaining popularity 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 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 rms are utilising 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 to create and use such 3D applications, and to harness innovative technology to create exciting interactive visual simulations. You will also learn to link them to hardware and software systems.

> We are pleased that TP has launched such an exciting course in support of the national focus on Interactive Digital Media. With interactive 3D applications now increasingly being used in more industries, and in more varied and creative ways, this new course will offer a unique combination of digital media concepts and engineering tools to prepare our students to meet the expected strong demand for such skillsets and know-how.
>
> Vincent Ong
> Managing Director
> IM Innovations Pte Ltd

Career Opportunities

Our graduates will be able to nd excellent employment opportunities in the IDM sector, as many of today's leading industries and institutions are starting to make use of 3D interactive visualisation and simulation solutions for sales and marketing, training, and maintenance. 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 & development in IDM over the next ve years, creating 10,000 new jobs by 2015. You can establish exciting careers as Interactive 3D visual content developers, interactive media product specialists, 3D simulation developers or virtual training application developers.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA -

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Note: Applicants with partial or complete Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

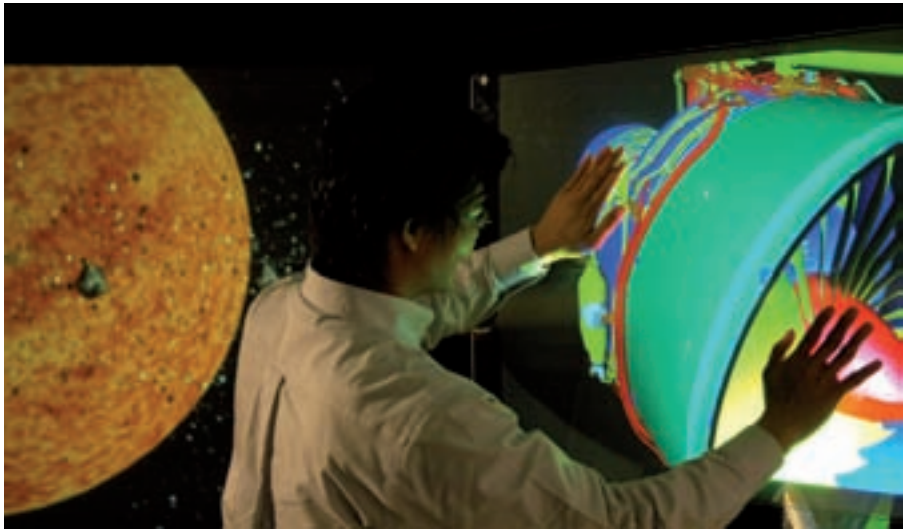
Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	: 109 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 137 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Interactive Media Technology

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'.



Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
DNG1342	Drawing Essentials*	1	3
DNG1344	3D Art Fundamentals*	1	3
DNG1345	Ideation*	1	3
ECC1003	Web Application Project 1	1	4
EDM1001	Modelling & Animation*	1	5
EDM1002	Fundamentals of Digital Media Processing*	1	4
EDR1003	Engineering Drawing	1	4
EEE1006	Engineering Fundamentals	1	5
EMA1001	Engineering Mathematics 1	1	5
EMA1002	Engineering Mathematics 2	1	4
EPL1003	Problem-Solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
DNG2339	Interface Design 1*	2	3
DNG2347	Interface Design 2*	2	3
EDM2003	Fundamental 3D Interactive Digital Media*	2	3
EDM2004	Advanced Digital Animation & Special Effects*	2	4
EDM2005	IDM Project*	2	6
EDM2006	Systemic Project Management*	2	3
EED2008	Product, Process & Computer Aided Design*	2	4
EED2009	Rapid Prototyping & Model Making*	2	4
EDM3001	Advanced Interactive Digital Media*	3	4
EDM3002	3D Real-time Visualisation*	3	4
EDM3003	Interactive 3D Display System*	3	4
EMP3001	Major Project	3	12
ESE3001	Database Management System & Design	3	5
ESE3006	ASP .NET Web Programming	3	4

*Subject names are subject to changes.

Special Electives
Students can opt to take Special Electives when offered. These optional 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.

Mechatronics

Mechatronics integrates the strengths of mechanical engineering, electronics, and intelligent computer control in product design and automation processes. It is applied widely, in areas as diverse as manufacturing, medicine and the service industries. Today, mechatronics systems are found in almost everything from robots, to toys and surgical devices. As such, the future for mechatronics engineers is virtually unlimited.

This course begins by giving you a solid foundation in fundamental engineering knowledge and skills, which will then expand into core competency areas such as automation, robotics, mechatronics design, programmable logic controllers, electro-pneumatics, vision systems, computer numerical control, computer aided design/computer aided manufacturing, sensors, virtual reality, computer programming, microcontroller and control engineering.

If you are keen to pursue a career in the aerospace industry, you may take the Aerospace Engineering option offered to you during the second year of your course. Alternatively, you may, in your nal year, choose to take any of three Cluster Electives involving key areas of technology. These are: Process Control & Automation, 3D Design & Visualisation, and Robotics.

Both the Aerospace Engineering Option and the Cluster Electives allow you to specialise in exciting elds with great prospects, and yet receive a broad-based training in useful mechatronics areas. By matching your interest and aptitude in one of these areas, you will nd yourself more industry ready upon graduation.

> TP has continuously kept its Mechatronics course highly relevant by injecting the latest topics into its curriculum, and through the consistent interfacing with industry partners. Its Mechatronics diploma holders are therefore well trained to match the needs of the industry.
>
> Lieu Yew-Fatt
> Managing Director
> Omron Electronics Pte Ltd

Career Opportunities

The market opportunities and bene ts to be gained from designing smart products and automated systems with an integrated use of electronics, mechanical and computer technologies are huge, and will continue to grow rapidly in the coming years. Companies in these areas will increasingly need competent mechatronics graduates, providing abundant job opportunities for you.

You will excel in a wide spectrum of industries as diverse as electronics, manufacturing, food processing, pharmaceuticals, chemicals and aviation. You may also choose to do R&D work, equipment design and development, planning, project management, as well as technical sales and marketing. You are also quali ed to work in high-tech manufacturing environments and the growing petro-chemical industry. Your diploma also enables you to take up local and overseas degree programmes in electronics, mechanical or computer engineering.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA -

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Note: For safety reasons, applicants must ensure that they do not suffer from medical conditions such as epilepsy or hearing deficiency.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 97 credit units
Option / Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 137 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Mechatronics

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
EDR1003	Engineering Drawing	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
EME1002	Statics & Strength of Materials	1	4
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
ECT2001	Circuits & Control Systems	2	5
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
EEE3004	Power Electronics & Drives	3	4
EMP3001	Major Project	3	12

Diploma Subjects - Elective Options Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Aerospace Engineering			
EAE1001	Airworthiness Administration & Human Factors	1	4
EME2002	Thermal & Fluid Engineering	2	4
EME2006	Engineering Materials	2	4
EAE3001	Aircraft Propulsion Systems	3	4
EAE3002	Aerodynamics & Mechanical Controls	3	4
Process Control & Automation			
ECT2004	Instrumentation & Computer Control	2	4
EMF3004	Automation & Machine Vision	3	4
EMI3005	Cleanroom Equipment & Technology	3	4
3D Design & Visualisation			
ECA3002	Virtual Reality	3	4
ECA3003	3D Modelling	3	4
EED3006	Product / Process Design	3	4
Robotics			
ECT3002	Analytical Robotics	3	4
ECT3003	Robotic Control Systems	3	4
EMC3002	Embedded Control & Applications	3	4

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
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.

Media & Communication Technology

Interactive High Definition TV, Internet Protocol television (IPTV), and iPhones – these are just some of the latest and hottest technologies under the umbrella of Media and Communication Technology, which looks set to become the next big thing in today's global economy.

This course enables you to tap into the emerging market created by the rise of such new technology in the eld of communication. It enables you to participate in this fast-expanding eld, by equipping you the skills to handle and manage the technology that is so vital in this sector, namely, digital communication, wireless devices, broadband, media design and other emerging media and telecommunication technologies.

You will get a sound foundation in electronics, communications and digital media, with emphasis on a "hands-on, minds-on" approach. The rst year of the course is common with the Electronics diploma course. In your second year, you will enrol in subjects on the fundamentals of media and communication technology. In your third year, you will re ne your specialisation by choosing elective subjects in areas such as multimedia networking and applications, wireless and mobile communications, and digital broadcasting.

> The convergence of traditional broadcast engineering and digital media technology will require graduates with new skill-sets in media and communication technology to serve the new media industry better. It is indeed timely that TP has introduced this course to meet the needs of this emerging industry.
>
> Mock Pak Lum
> Managing Director
> MediaCorp Technologies Pte Ltd

Career Opportunities

The Singapore government's "Next Generation National Infocomm Infrastructure" plan, together with its commitment to make Singapore 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 elds of designing, manufacturing, sales and marketing, service and maintenance or technical support in the communications, digital media, infocomm or broadcasting industries.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

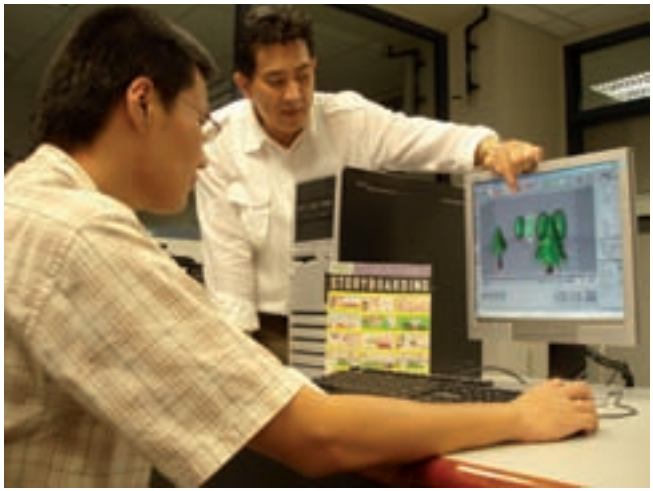
Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 135 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Media & Communication Technology

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'.



Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
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
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
ECC1002	Networking Fundamentals	2	4
ECC2007	Network Infrastructure	2	4
EDM2001	Storyboarding and Animation	2	4
EDM2002	Digital Video Production	2	4
EED2005	Integrated Project	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
ETW2001	Telecommunication Principles	2	5
ETW2007	Digital Communications	2	5
EMP3001	Major Project	3	12

Diploma Subjects - Elective Options Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECC3001	Internetworking Technologies	3	4
EDS3002	Digital Signal Processing	3	4
ETW3001	Mobile Communications	3	4
ETW3003	Broadband Technologies	3	4
ETW3006	Satellite Communications	3	4
ETW3009	Digital Broadcasting	3	4
EWN3001	Wireless Area Network Technologies	3	4

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
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, fabricating microelectronic devices, peering into powerful microscopes examining tiny components called integrated circuit chips and exploring nanotechnology. This is one of the many experiences you will enjoy as a Microelectronics student.

Microelectronics is a eld 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 computers, telecommunication equipment, audio-visual products, space equipment and other electronic products.

This course provides you with a strong foundation in the electronics and microelectronics disciplines. The rst year is common with the Electronics diploma course. In your second and third years, apart from the core electronics subjects, this course also branches into speci c 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 state-of-the-art Class-100 Cleanroom and explore the eld of nanotechnology.

> I am pleased to note that this course prepares students for a career in the semiconductor industry by providing them with first-hand knowledge of semiconductor processes. In addition, TP's excellent links and partnerships with wafer fab plants provide students with a very meaningful internship programme.
>
> Dr Lap Chan
> Fellow, University Research Institute
> Chartered Semiconductor Manufacturing Ltd

Career Opportunities

You will be equipped with technical skills to gain pro ciency in the use of basic electronics and microelectronics-related equipment, as well as effective communication skills. You will also be pro cient 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.

Minimum Entry Requirements

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects	Grades 1-6

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

Any two other subjects, excluding CCA	-

** SPM/UEC holders must have a minimum of Grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 102 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 138 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Microelectronics

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'.

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
GCD1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living 3 (APEL 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
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
EPL1003	Problem-solving & Process Skills	1	2
ESE1005	Computer Programming	1	4
ECT2001	Circuits & Control Systems	2	5
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EMI2001	Semiconductor Physics & Devices	2	4
EMI2002	Wafer Fabrication Process Technology	2	5
EMI2003	Digital IC Design & Applications	2	5
EMI2005	IC Packaging & Failure Analysis	2	4
EMI2007	Analogue IC Design & Applications	2	5
EMI2008	IC Process Integration	2	4
EMI3001	Microelectronics Test & Measurement	3	5
EMP3001	Major Project	3	12

Diploma Subjects - Elective Options Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EMI3002	Display Technology	3	4
EMI3003	VLSI Design	3	4
EMI3004	Materials Science	3	4
EMI3005	Cleanroom Equipment & Technology	3	4
EMI3007	Nanotechnology	3	4

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
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.

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 different tones it gives on different 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.

DNG2339 Interface Design 1
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 examines the choice of appropriate styles and graphic treatment for the intended audience, and the use of conceptual models for creating appropriate user experience.

DNG2347 Interface Design 2
This subject builds upon Interface Design 1. It develops and deepens the understanding of GUI and user experience design. It focuses on the user interface of content, applications and media delivered on different platforms, and explores related emerging technologies. It also examines different ways of user testing and the use of prototypes in the interface design process.

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, aircrafts and airway systems. It will also touch on the history and the role of key players in the aviation industry.

EAE1001 Airworthiness Administration & Human Factors
This subject teaches you the history of the study of airworthiness in the aviation maintenance industry. It covers the basic rules and regulations which a Licensed Aircraft Maintenance Engineer has to follow in order to ensure safety. You will also understand how errors in the workplace are contained in the aviation maintenance industry.

EAE3001 Aircraft Propulsion Systems
This subject explores aircraft propulsion methods, thermodynamic cycles, combustion and thermochemical analysis, reciprocating engines, gas turbine and jet engines. You will also study the effects of atmospheric variations on engine and on engine/aircraft combination, auxiliary systems, and current developments in propulsion systems. The knowledge gained will lead you to the CAAS Licensed Aircraft Maintenance Engineer qualification.

EAE3002 Aerodynamics & Mechanical Controls
This subject introduces you to aerodynamics principles and mechanical flight control systems. It is designed to give a good balance between theoretical knowledge and applications using classroom learning, wind tunnel, and computational fluid dynamics experiments. Topics include physics of flight, aerofoil theory, flight stability, high speed flight and flight control systems.

EAE3003 Electrical Fundamentals & Systems
This subject provides you with in-depth knowledge of electrical theories and the electrical power system of an aircraft. The generation, distribution and conversion of electricity to power the various aircraft systems, as well as the fire protection, ice and rain protection, and lighting systems will also be taught.

EAE3004 Instrument Systems
This subject introduces the basic instruments used in the aircraft systems. The subject covers the principles and operations of various systems such as pitot–static systems, pressurisation systems, flight data recording, ground proximity warning systems, air data computer, autopilot, and gyroscopes. The measurement and sensing devices for pressure, temperature, position, rotational speed and vibration are also discussed.

EAE3005 Servomechanism & Electronics
This subject covers the basics of servomechanism and electronics used in aircraft systems. This includes error sensing devices, signal processing devices and control system applied in aircraft systems. In addition, digital information transfer systems, electronics displays, and electrostatic discharge will also be discussed.

EAE3006 Radio Fundamentals & Navigation Systems
This subject introduces basic concepts of radio theory and navigations systems. The fundamentals of communication systems used in aircraft communication including intra-aircraft communication will be covered. System and subsystem level coverage of different navigation systems will be included. Basic concepts and operations of different landing systems will also be discussed. The fundamentals of radar and its application in weather detection and air traf c control transponder will be emphasised.

EAL1001 Principles of Aeronautical Science
This subject will provide you with a basic understanding of the fundamentals of ight operations. Topics covered include the theory of ight, elements of air navigation, aircraft systems and performance, ight physiology, aviation regulations and safety aircraft types and performance, as well as an overview of careers as commercial pilots.

EAL2002 Management for Air Cargo
The subject will provide you with 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 ow for cargo operations, and future trends and forecasts of the cargo industry.

EAL3001 Airline Operations & Management
This subject introduces you to the fundamentals of airline management. Topics covered include airline organisational structures and business modelling, route planning and development, airline and route pro tability, air transport agreements and the regulatory framework of the airline industry, airline alliances, eet and facilities planning, airline nancing, product development and acquisition, as well as key airline performance indicators.

EAM1001 Airport Operations & Management
This subject introduces the fundamental concepts and principles involved in the management and operations of modern international airports. You will learn about the principles of airport management and the various aspects of airport operations and aerodrome planning. Topics covered include an overview of key players in terminal operations, airport terminal layout and planning, terminal signage systems, terminal ground operations, gate and baggage belt assignments, terminal contingency planning, the impact of new large aircraft on airport planning and operations, airport certi cation, aircraft accident and incident investigations, the removal of disabled aircraft, airport emergency systems, bird hazard management, airport support services and equipment, estate management as well as terminal landscaping. An overview of future trends and challenges facing the airport industry will also be covered.

EAM1002 Airport Administration
This subject the fundamental concepts and principles involved in the organisational, political and nancial administration of modern international airports. Topics covered include airport performance, productivity and feedback systems (including benchmarks used for global airport rankings), airport commercial management, public relations and, corporate/business planning, organisational structures, nancial and accounting strategies, revenue and expanse sources, as well as the economic impact of airport operations. An overview of the various airport ownership models is also covered.

EAM2001 Ground Handling Operations & Management
This subject will introduce you to the fundamentals of ground handling and ramp operations. Topics covered include principles of establishing and managing a ground handling company, airline ight catering, aircraft, passenger and baggage handling services, as well as ground handling agreements

EAM2003 Aviation Safety Management & Human Factors
This subject will provide you with an understanding of safety management systems (SMS) in aviation and the role human factors play in ensuring safety. You will learn about accident causation and prevention, the elements of a SMS, the regulatory requirements for SMS, human factors and system safety, implementation and operations of SMS, hazards analysis and risk management, evaluating and regulating SMS, and principles of safety information systems.

EAM2005 Airline Flight Operations
This subject introduces you to the fundamental of airline operations. Topics covered include crew planning and scheduling, freight and punctuality management, eet assignment, maintenance and engineering issues, seat inventory control, ight departure 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.

EAT2001 Airport Systems 1
This module provides an overview of the key facilities and systems in an airport.

You will learn about the passenger check-in systems, the ight information display systems (FIDS), and the various airport IT support systems. You will also learn about the operation of the fully-automated baggage handling system including the high-speed inter-terminal baggage transfer system and automated early bag storage key airport terminal systems such as the people mover system (PMS) and passenger loading bridges (PLB). In addition, you will also gain an understanding of the key concepts and operations of the PMS system used to ensure the convenient and seamless transfer of passengers between airport terminal buildings. You will also be provided with the knowledge to operate the latest PLB system, including the new generation PLB for handling the world's largest aircraft, the Airbus A380.

EAT2002 Airport Systems 2
This subject will introduce you to the fundamentals of airport ramp operations. Topics covered include an overview of airside operations and management, key players in ramp operation and management, regulatory requirements for airside operations and ground handling, passenger and baggage handling facilities, fuel farm and hydrant services, contingency planning for airside operations, ramp management and handling services, ground movement control, as well as ramp safety audits. An overview of future trends and challenges facing airside and ground handling operations are also covered.

EAT2003 Airfield Systems 1
This module will provide you with a basic understanding of the various air traf c control radar and communications systems used in the aviation industry, as well as the fundamentals of air traf c management. Topics covered include aviation meteorology, air traf c service (ATS) / ight 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 traf c controllers and commercial pilots.

EAT2004 Airfield Systems 2
This module introduces the key principles of air eld lighting systems and aircraft pavement maintenance in airside operations. The basic design principles, operational theory and effective management of the air eld lighting systems will be covered with emphasis placed on safety and integrity of the systems and their compliance to international operational standards and requirements. The causes of wear and tear of aircraft pavements, the methods of assessing the conditions of aircraft pavements, the programming of maintenance works, and the methods and techniques of repairs together with their compliance to international operational standards and requirements, will also be covered.

EBD1001 Computer-Aided Design & Building Specifications
This subject introduces graphical representations and the use of computer-aided design tools in building drawings. Particular emphasis is given to architectural and engineering design, speci cations and drawing conventions.

EBD1002 Integrated Resort Design & Development
This subject focuses on the design and development of integrated resorts. Design concepts as well as real estate development are introduced. Special features and requirements of facilities such as hotels, shopping malls, convention centres, recreational facilities, and casinos are examined with the emphasis on the integration of such facilities.

EBD2001 Total Building Performance
This module takes into consideration all the key factors that affect the performance and ef ciency of intelligent buildings. It introduces the performance mandates to indoor environmental quality. Management of indoor environmental quality through design considerations, systems, practices and benchmarking are introduced. You will use computer-based applications to model, simulate and predict total building performance for design optimisation.

EBD2002 Human-Centred Design & Ergonomics
This module introduces design elements, principles and basic representation techniques used by designers to facilitate the development and communication of design ideas. You will recognise the importance of human anatomy, physiology, and psychology factors, to ensure that the environment and product designs are comfortable, safe and ef cient to use. This module allows you to create well-designed systems in work and play to enhance health and safety in residential, institutional and commercial interior designing projects.

EBD2005 Security & Surveillance
This subject gives an overview of security and surveillance, including the entire process of security and surveillance design and integration. The main emphasis is placed on applying scienti c 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.

EBD3001 Space Planning
This module covers design methodology such as design programme and design development. Key considerations include the building codes, exible space utility, ergonomics, interior furnishing and spatial

quality. You will use computer-aided software to create three-dimensional models of space and its facility planning. This advanced module, following the module on Computer Aided Design & Building Speci cations, allows you to acquire designing fundamentals of planning and organising interior space in residential, institutional and commercial projects.

EBD3002 Lighting & Acoustics
This subject covers two key aspects in building physics. Lighting design includes both functional and aesthetics aspects for interior design, while building acoustics covers of ce and residential acoustics such as source of noise, sound transmission and absorption.

EBI2001 Introduction to Bioinformatics
This subject covers basic bioinformatics concepts, databases, tools and applications. This will include the following areas: dynamic programming for sequence alignment, pairwise and multiple alignment techniques, discovery of evolutionary relationships, gene hunting, EST and microarray. It also provides a brief overview of Proteomics.

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 emphasises the life cycle of the entire construction process. It covers topics on the stages of a construction project, namely, project planning, implementation and closing, as well as the project team. This subject encompasses both theory and practical skills in using project management tools.

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 re command centre, the use of detection, protection and control systems, re investigation and formulation of a re emergency plan.

EBM2006 Building Management Systems
This subject equips you with the knowledge of Building Management System (BMS) and associated technologies. It covers building management tools, heating ventilation and air-conditioning (HVAC) control, and energy management system, while focusing on the components, functions, and control strategies for the chiller plant and air-handling systems. It also deals with facility and maintenance management programmes, including the application and integration of building management tools in an intelligent building.

EBM3001 Energy Audit
This subject covers the concept of energy auditing as a benchmarking tool for evaluating the energy performance of a building. The importance of building energy performance indicators, energy audit procedures, data acquisition for energy audit processes and energy-related standards, codes and regulations governing building services will also be covered.

EBM3003 Financial Management & Forecasting
This module introduces key concepts of nancial management and forecasting techniques. It focuses on the use of nancial information in managing nancial resources, capital investment evaluations, and the analysis of the pro tability, liquidity and ef ciency of business operations. You will also learn techniques like return on investment (ROI) and life cycle cost (LCC) analysis which are needed to evaluate the feasibility of new construction and retro tting projects.

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), this subject delves into business impact analysis, risk evaluation, BCM strategies and emergency response and operations. The development of business continuity and crisis management plans and the coordination with external agencies are also discussed.

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 signi cance 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.

EBS2003 Biomedical Physics
This subject builds the necessary foundation to initiate you into the biomedical physics discipline. Fundamental physics relevant to the eld of biomedical engineering will be covered. You will be introduced to the scope of biomedical physics including the spectrum of electromagnetic waves, optics, lasers, gas laws, uid mechanics, and magnetic elds, with emphasis on biomechanics and sound waves. Other introductory topics include the eld of physiological effects of electrical currents, protection against electrical shock and electrical safety standards. Bioethics issues are also discussed.

EBS3001 Biomechanics
This subject introduces the basic concepts of mechanics and anatomy in biological systems. Topics covered include the kinematics and kinetic concepts of analysing human motion, the biomechanics of human bone growth, skeletal articulation and muscles. A brief introduction to the biomechanics of tissue engineering will also be covered.

EBS3003 Clinical Laboratory Equipment
This subject focuses on important aspects of clinical laboratory and instruments widely used in clinical laboratories. Topics include centrifuges, automated analyser, separation techniques, bioreactor, mass spectrometry and clinical trial. Essential insights of clinical laboratory practices are also given.

EBT1002 Intelligent Workplaces & Dwellings
This subject introduces the concepts, development and trends in the design, systems and management of advanced workplaces and dwellings.

EBT1003 Facilities Operations & Maintenance
Air-conditioning and ventilation, cold water distribution systems, electrical installations, lifts and escalators are the key systems in facilities operations. Knowledge of a system's operation and its maintenance requirements are essential to facility management. Facility management is about the stewardship of existing facilities in a real estate to enable effective operation and better business performance, thus leading to a higher level of work satisfaction and increased productivity.

EBT2005 Building Control Systems
This subject introduces the concepts of control systems in intelligent buildings. Beginning with different types of control systems, it focuses on interfacing of sensors and actuators to controllers and the different types of controls used in building automation systems. Emphasis is placed on the study of Programmable Logic Controllers (PLCs) used for automation and control applications in buildings. Direct Digital Controllers (DDCs) will also be discussed.

EBT2007 Building Sensors & Actuators
This subject introduces you to sensors and actuators used in building automation systems. It focuses on digital and analogue sensor technologies as well as electro-mechanical systems. You will be taught the principles of sensors and actuators, their design, and the implementation of such systems.

EBT3007 Intelligent Devices & Systems Integration
This subject equips you with knowledge on microprocessor-based controllers, networking and systems integration. You will be exposed to various techniques in the making of intelligent devices. Low level and high level methods of integration will be discussed.

EBT3008 Intelligent Building Management System
This subject equips you with knowledge on Intelligent Building Management System's (IBMS) associated technologies. It provides an overview of the services and

maintenance management of an intelligent building.

EBZ1001 Business Fundamentals
This subject gives you a macro-view of the four pillars of business: management, marketing, money and manpower. It introduces you to the conceptual tools of economic analysis such as scarcity, demand, supply and equilibrium. Consumption, output and resource analysis, strategic management, marketing principles and management are also taught. This module may be offered on-line.

EBZ1002 Principles of Economics
This is an introductory subject to equip you with basic economic concepts and tools for understanding the business environment and the Singapore economy. You will study demand and supply analysis, market structures, measurement of GDP, aggregate demand and aggregate supply, and macroeconomic policies.

EBZ1003 Accounting Fundamentals
The subject aims to provide you with understanding of a general framework of the accounting discipline. You will learn fundamental knowledge of accounting concepts including preparing, understanding and analysing accounting records and simple financial reports for small and medium-size enterprises (SME).

EBZ2002 Marketing Intelligence
This subject covers methodologies in marketing research and provides an overview of its role in timely and accurate decision-making processes.

EBZ2003 Engineering Economy & Management Accounting
This subject provides you with a basic understanding of the economic aspects of engineering applications, EVA (Economic Value Added), and elements of costs and costing methods. You are expected to apply economic analysis to compare different alternative engineering proposals, analyse and interpret costing information, and to measure business performance using EVA.

EBZ2005 Marketing Concepts & Strategies
The subject will provide you with an understanding of the general framework of the marketing discipline and its application to technology products and services. It deals with fundamental marketing concepts including analysis of the marketing environment, target marketing, the marketing mix, and how to carry out sound market research.

EBZ2006 Service Quality & Management
This subject introduces you to service quality concepts and principles. It also emphasises the strategy and style of management that service organisations can adopt to gain competitive advantage in the marketplace. The focus is on service management, customer satisfaction and developing quality service solutions.

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. You will gain a basic understanding and an appreciation of the issues relating to technopreneurship and the setting up of new businesses.

ECA3002 Virtual Reality
This subject emphasises the importance of virtual prototyping in manufacturing and e-commerce applications. You will be taught three main areas: modelling, behaviour programming and display systems. You will work on a 3D web page which incorporates an interactive virtual world, standard HTML, text, sound, animation and graphics.

ECA3003 3D Modelling
This subject equips you with different techniques and strategies to model 3D objects and generate 2D drawings using computer aided design software. You will be able to generate quality product drawings after mastering assembly methods, to use the surface creation skills to generate realistic products, as well as to apply animation to the products modelled.

ECC1001 Internet Infrastructure
This subject focuses on the key networking concepts and covers the basic Internet communication facilities used to provide for the Internet services. It also examines the reasons for the Internet success and explores the use of HTML, Java applet, and JavaScript to illustrate the concepts behind the different types of web documents.

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.

ECC1003 Web Application Project 1
This subject covers the basics of web design and development. It focuses on web page planning, basic design, layout, construction, setup and maintenance of a website. The subject is delivered through a series of hands-on exercises and a group project.

ECC1004 Web Application Project 2
This subject provides the knowledge and skills in developing a dynamic e-commerce website through a series of hands-on exercises and group project. You will utilise web development tools to create dynamic web pages for the online e-commerce store.

ECC2005 Internet Computing Applications
This subject covers the features of the Java Programming language used in developing network and Internet applications. Topics include multithreading, le handling, multimedia, networking and reusable components.

ECC2006 Introduction to Networking
This subject covers the fundamental principles underlying the installation of computing devices in a computer network. Students are taught the basic knowledge of data transmission, Open Systems Interconnection (OSI) reference model as well as Local Area Network (LAN) protocols and technologies.

ECC2007 Networking Infrastructure
This subject covers the basic theories of routing and switching and their applications in the networking environment. Topics include IP addressing, roles of routers in Wide Area Networks (WANs), router fundamentals and con guration, routing protocols and switching.

ECC2008 Network Administration
This subject prepares you to be administrators of computer operating systems. It covers installation procedures, con guration steps, management features, monitoring tools, account administration and troubleshooting techniques. You will get hands-on sessions to reinforce your understanding of server and client platforms and network infrastructure.

ECC2009 Advanced Mobile Computing Applications
In this subject, you will learn about prevailing wireless technology through the development of a mobile application. You will learn to design and implement a mobile Internet application. At the same time, the subject also teaches Java 2 Platform Micro Edition (J2ME) programming and Extensible Markup Language (XML) processing, equipping you with basic technology tools for mobile application development.

ECC3001 Internetworking Technologies
This subject covers advanced topics such as Variable Length Subnet Mask (VLSM) and Network Address Translation (NAT) to help conserve IP addresses, implementation of Dynamic Host Con guration Protocol (DHCP) when designing the LAN networks. It also includes concepts of various dynamic routing protocols and their implementation to interconnect the LAN networks. Different Wide Area Network (WAN) technologies are also covered.

ECC3004 Enterprise Web Application
The subject provides the opportunity for you to better appreciate the client-server relationship in the Internet. It 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. Topics covered include JavaServer Pages (JSP), XML and security.

ECC3008 Network Security
Network security involves identifying and assessing risks to the computer network, putting in place the systems, processes and control measures to protect information stored in 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 and the counter measures against these threats. Lab sessions will include some hacking activities and defensive measures to give you a feel of the dangers lurking in the Internet.

ECS1003 Writing & Oral Presentation
In part one of the subject, you will learn the skills of technical writing and produce an academic technical report. In part two of the subject, you will learn the preparation and speech delivery skills required for an effective 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. In terms of listening and reading, you will learn to recognise organisational structures as well as the style of formal spoken and written engineering texts. In terms of writing, you will learn to write grammatically, especially using the types of sentence structures commonly found in engineering texts. In terms of speaking, you will learn to produce the linguistic features of 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 an engineering service. It also covers the functions and requirements of the different media that are used in the communication process. You will learn how to write in different styles and make oral presentations in different settings to achieve different outcomes in the business domain.

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 awareness of communication dynamics and sensitivity in communication situations. 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 future workplace as well as enhances the technical writing skills that you have learnt. Emphasis will be put on writing a well-structured and coherent technical report to showcase your Major Project and present it in vivas and project presentations. To enhance your employability skills, you will also have opportunities to learn 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 provides you with fundamental knowledge of the transient processes, analysis methods of electric circuits and linear control systems. You will learn the fundamentals of control theory, the structure of feedback control systems and design techniques used in control systems for both time domain and frequency domain. Commonly used sensors, transducers and signals measurement techniques will be introduced. System simulation will also be taught.

ECT2004 Instrumentation & Computer Control
This subject covers topics such as instrumentation and measurements, controller principles, multiple loop control systems and digital control systems. You will also learn various computer control systems such as direct digital control system, distributed control system and eldbus control system.

ECT3002 Analytical Robotics
This subject equips you with fundamental robotics concepts of basic kinematics, translation, rotation matrix, omni-directional drive system, sensors, actuators, power transmission device, trajectory planning and control. You will participate in practical applications involving a mobile robot, and carry out lab experiments and assignments that will give you a clear understanding of any related robotics application.

ECT3003 Robotic Control Systems
This subject focuses on digital control theory and state-space design in robotic applications. You will cover the applications of modern digital design concept in robotic control systems that will extend your skills and knowledge in the state-space design methods, digital system stability, and digital controller technique. You will learn to analyse, design and observe the characteristics of motion control systems through lab experiments and assignment projects.

EDM1001 Modelling & Animation
This subject provides practical skills to enable you to create objects in 3D and to animate them aesthetically. The skills taught include creating scripts and storyboards for speci cation. It then follows up with fundamental theories of 3D object creation, modelling, scene composition and animation with a practice oriented approach to creating digital animation using industry grade tools.

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.

EDM2001 Storyboarding & Animation
This subject provides practical skills to translate stories into storyboards for production and client presentation. It then follows up with composition theory, fundamental theories of animation with a practice oriented approach to creating digital animation using industry grade tools. Basic video editing skills will also be taught.

EDM2002 Digital Video Production
This is a hands-on and project-based subject. You will be required to Im and produce digital video clips. It covers the basic principles and techniques employed in digital video production, including basic story boarding, video camera and capturing equipment operation, lighting, sound and digital computer editing.

EDM2003 Fundamental 3D Interactive Digital Media
This subject emphasises virtual prototyping in product design and e-commerce application. You will be able to incorporate text, sound, animation, objects, and textures into a real-time interactive environment, using behaviour programming, as well as interfacing to various web applications. You will also be able to produce customisable smart objects as prototypes for other environments.

EDM2004 Advanced Digital Animation & Special Effects
This subject uses a practice oriented approach to emphasise advanced techniques of animation and special effects, including character animation, particles, lights, 3D painting, as well as customisation of tools using scripts for advanced deployment.

EDM2005 IDM Project
This subject provides an opportunity for you to apply the knowledge you have learnt in the course of your study. You will acquire the practical skills and capabilities for problem solving, research and design, project management as well as technical innovation in producing your own products.

EDM2006 Systemic Project Management
This subject emphasises the life cycle of the entire project management process related to developing interactive digital media contents and applications. It covers topics on the stages of project planning, project implementation, project closing and project teams. It encompasses both theory and practical skills on using project management tools.

EDM3001 Advanced Interactive Digital Media
This subject allows you to build upon your interactive digital media knowledge to incorporate interfaces into various applications. Using advanced libraries, you will be able to enhance your applications by building customisable modules and nodes, allowing in-depth understanding of interfaces and the real-time rendering engine.

EDM3002 3D Real-time Visualisation
The subject builds upon Modelling, Animation and Fundamental 3D Interactive Digital Media subjects to train you to be competent in creating photorealistic real-time interactive content. This includes the use of special rendering techniques, High Dynamic Range Imaging (HDRI) techniques as well as the methodology.

EDM3003 Interactive 3D Display System
The subject provides you with the necessary knowledge of how various input and output interactive systems such as Stereoscopic displays, Auto-stereoscopic displays, Holographic displays, Pinch gloves, Wands, Passive and Active sensors work and how they can be used and applied in various applications.

EDR1003 Engineering Drawing
This subject introduces you to the preparation of two-dimensional mechanical engineering drawings, using both manual drafting and a PC-based software. General methods of dimensioning and tolerancing according to international and local standards will be covered.

EDS3002 Digital Signal Processing
This subject provides you with an overview of digital signal processing and its applications. Fundamental topics such as sampling, quantisation, discrete-time signals, z-transform and difference equations will be covered. You will learn discrete-time convolution used in digital filtering, the techniques of designing FIR and IIR filters, as well as stability problems in IIR. You will be taught the discrete Fourier transform (DFT) and the fast Fourier transform (FFT) to relate signals from the time domain to the frequency domain. You will also be introduced to real-time digital signal processing on an industry type digital signal processor.

EED1001 Electronic Prototyping
This subject introduces you to the use of hand-tools and standard laboratory equipment for the construction of electronic prototypes. You will also be taught to identify basic electronic components for project work on electronic devices, and also learn how to construct 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 workstation and 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 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
This subject provides you with the basic principles in the design and development of a Mechatronics product through hands-on practical sessions. You will learn to visualise your product idea by using a Computer Aided Design tool, and then fabricate the physical product via prototyping techniques.

EED2008 Product, Process & Computer Aided Design
This subject embraces a design oriented approach to creative product design. It covers product and process design, tools, needs and goals, design specifications and development concepts. Using these methodologies, you will be able to master, assemble and generate realistic products in digital form.

EED2009 Rapid Prototyping and Model Making
Using various advanced rapid prototyping methodology as well as basic processing of wood, metal and plastics, you will acquire a working knowledge of constructing physical 3D models for product presentation.

EED3006 Product/Process 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-type projects or to represent Temasek Engineering School in relevant competitions or programmes. Through these special electives, you will build and deliver projects in accordance with competition speci cations or goals.

EED3010 Special Project 2
See above.

EED3011 Higher Engineering Skills 1
Higher Engineering Skills 1 and 2 aim to impart some special design and hands-on skills that are not normally incorporated into a diploma programme, but which are both useful and relevant for you to enhance your knowledge and various life-skills. These skills may also be necessary when you take part in internal or inter-institutional competitions. By taking these Special Elective subjects, you will be trained and equipped with the special skills for such competitions, or to tackle problems in real life.

EED3012 Higher Engineering Skills 2
See above.

EEE1001 Circuit Analysis
This subject provides you with a good foundation in DC and AC network analysis. You will be taught basic electric principles and how to apply circuit theorems when analysing 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, eld-effect transistors and their applications. It also focuses on the fundamentals of operational ampli ers and their applications, and the rudiments of circuit troubleshooting and testing.

EEE1003 Digital Fundamentals 1
This subject provides you with basic knowledge of digital electronics and circuits. Topics include number systems, operations and codes, logic gates, Boolean algebra and logic simpli cation, combinational logic, functional blocks, latches and ip- ops.

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 you with a basic knowledge of digital electronics. You will learn the theoretical and practical knowledge of fundamental digital concepts and basic building blocks of digital electronic circuits. Topics covered include number systems, Boolean algebra and combinational logic, sequential logic and memory devices.

EEE1006 Engineering Fundamentals
This subject provides you with a strong foundation in basic engineering concepts, electrical principles, circuit theorems, digital electronics and electronic devices.

EEE2001 Integrated Circuit Applications
This subject covers the applications of common integrated circuits. The fundamental concepts of operational ampli ers and their applications will be taught. You will learn how to use operational ampli ers to design clippers, clampers, comparator circuits and active lters. Applications of 555 timer and voltage regulators will also be discussed.

EEE2002 Electronic Systems Design
This subject provides you with a good foundation in the design of the different types of electronic systems. You will also be exposed to the challenges of designing both analogue and digital circuits and acquire skills to troubleshoot hardware circuits.

EEE2003 Circuits & Signals
This subject introduces speci c circuit con gurations and design concepts used in medical equipment, as well as the basic concepts of signal processing. The rst part of the subject describes Op amp applications in biopotential ampli ers, in lter designs and some design aspects of power supply used in medical devices. The topics covered in the signal processing portion include signal ltering, convolution, signal sampling, and correlation. Applicatio ns of signal processing related to bioelectric signals are used to provide a better understanding of these useful techniques.

EEE3001 Advanced Electronics
This subject provides you with the basic concepts of designing and using linear integrated circuits for different functions such as ampli ers, voltage-controlled oscillators and DC-DC converters. The design of attenuators and lters, 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 rectifiers and 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 you to the safety requirements and regulations governing electrical distribution and installation.

EMA1001 Engineering Mathematics 1
This subject provides you with 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 you to 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 (eg, chain rule, product and quotient rules), and integration techniques (eg, substitution, use of the mathematical table, integration by parts, partial fractions) will also be covered.

EMA2001 Engineering Mathematics 3
This subject introduces you to differential equations, Laplace transform, approximation using Maclaurin's series and Fourier analysis. You will learn how to formulate engineering problems using first and second order differential equations and to solve them using techniques such as Laplace and Fourier transform.

EMA3001 Higher Engineering Mathematics
The subject introduces you to mathematical concepts and techniques used in advanced engineering courses. You will learn topics in calculus such as limit 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. The emphasis will be on the knowledge of microcontroller architecture, application and programming. It exposes you to the basics of microcontrollers. Emphasis will be placed on developing and testing software for microcontroller-based system applications, using "real-world" applications such as a bank automated queuing system, or a traffic-light and pedestrian crossing control system.

EMC2004 Internet Appliances
This subject covers the application development for embedded systems and Internet appliances. Topics include the hardware overview, real-time operating system, real-time concepts, networking protocols, Java native interface and various performance issues of programming languages or platforms. You will also learn about various design and debugging techniques with the help of hardware and software development tools.

EMC3002 Embedded Control & Applications
This subject provides you with enhanced knowledge of microcontroller-based embedded systems with emphasis on its interfacing and applications. You will be taught the fundamental C programming and microcontroller interfacing techniques. You will also work on a group project that uses most of the hardware peripherals, programming algorithms and interfacing techniques learnt in the subject.

EMD2001 Medical Electronics
This subject introduces fundamental instrumentation theories for biomedical applications and design requirements for the measurement of biosignals. Topics include electrodes and transducers, biopotential 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. Topics include 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 covers two key principal areas: fundamentals of statics and strength of materials. The former gives you an understanding of the fundamental concepts of body in statics, while the latter introduces you to the design consideration for mechanical members subjected to different loading conditions.

EME2001 Air Conditioning & Hydraulics
This subject is composed of two principal areas: air conditioning system and hydraulic service. Air conditioning system covers refrigeration, cooling load calculations, psychrometrics and duct design, while hydraulic service covers the fundamentals of water system design.

EME2002 Thermal & Fluid Engineering
This subject provides you with the fundamental knowledge in three key principal areas: heat transfer, thermodynamics, and uid mechanics. Heat transfer includes conduction, convection and combined modes. Thermodynamics covers the rst and second laws of thermodynamics for steam and perfect gases, nozzles, and heat engines. Fluid mechanics covers uid static, uid dynamics, ow-governing principles and losses in pipe ow.

EME2004 Programmable Automation
This subject provides you with the fundamentals underlying the contemporary manufacturing automation environment. Four main topics are covered in this subject: 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 these topics, followed by an overview of how to automate production processes to achieve high quality and productivity.

EME2006 Engineering Materials
This subject provides you with an overview of the composition, processing and properties of engineering materials. You will cover basic structural materials, including metals, polymers, and composites, that are commonly used for engineering applications. You will also be introduced to the heat treatment process, non destructive testing (NDT) and various surface treatment processes.

EME2007 Machining Technology
The subject introduces you to conventional and computer-controlled manufacturing processes. You will learn various manufacturing processes with hands-on practice on conventional and computer numerical control (CNC) machines. You will also be exposed to the computer aided design and manufacturing (CAD/CAM) system during these practice sessions. Safety aspects are emphasised throughout all workshop sessions.

EME2008 Principles of Dynamics
This subject provides you with the opportunity to study and apply the fundamental principles of the dynamics of moving bodies. You will also learn to analyse these moving bodies in the dynamic systems. The main topics that will be taught include Newton's laws of motion, as well as the principles of work and energy, impulse and momentum, and the trajectory motion of bodies.

EMF3002 Manufacturing Logistics & Simulation
This subject introduces you to the concept of supply chain, logistics in manufacturing, manufacturing planning, inventory management, warehouse management, transportation, and simulation.

EMF3004 Automation & Machine Vision
This subject provides you with a basic understanding of the main components of an automatic system, ranging from various types of motor, servo system, sensors and programming techniques and machine vision systems. Applications used in commercial vision systems such as surveillance, assembly and quality control are covered through a series of laboratory sessions. Concepts and practical examples of common industrial applications integrating with automation and machine vision technologies are also illustrated. You will apply what you have learnt in a project involving an automatic system integrating with a machine vision system.

EMI2001 Semiconductor Physics & Devices
This subject presents various concepts related to semiconductor technology. It covers atomic physics, general material science and semiconductor materials, and also includes the physics of p-n junctions, MOS capacitors, MOSFETs and BJTs.

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, computer simulation sessions, and special projects to enhance learning.

EMI2003 Digital IC Design & Applications
This subject introduces the fundamental techniques of digital IC design. You will learn design rules, layout procedures, device modelling and simulation for combinational and sequential logic circuits. Semiconductor memories and programmable logic arrays will also be discussed.

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.

EMI2007 Analogue IC Design & Applications
This subject covers the analysis and design of fundamental analogue integrated circuits. The concepts are further reinforced and applied through the use of IC design tools for design entry, simulation and layout. The fundamental of operational ampli ers and their applications are also taught.

EMI2008 IC Process Integration
In semiconductor processing, process integration involves various aspects of wafer fabrication such as the ow and sequencing of process steps, isolation technology, interconnect technology, application of test structures for process monitoring and device testing as well as characterisation of basic MOS devices. In this subject, you will be exposed to various concepts and issues in the process integration.

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.

EMI3002 Display Technology
This subject covers various aspects of LCD technology including the materials used and the assembly of liquid crystal display optics and liquid crystal cells (LCC). You will learn about thin lm transistor and pixel array, as well as LCD equipment and its manufacturing process. Other display technologies will also be covered.

EMI3003 VLSI Design
This subject focuses on the practice of designing VLSI systems from circuits to architectures and from sub-systems to systems. Top-down design techniques will be taught using VHDL to design and model digital systems.

EMI3004 Materials Science
This subject focuses on the fundamental scienti c principles that govern the behaviour of materials. The multidisciplinary nature of the subject, involving the understanding of the defects in solids, diffusion, properties of materials, failures, metals and polymers will help you in the selection, processing and application of engineering materials.

EMI3005 Cleanroom Equipment & Technology
This subject introduces cleanroom as well as vacuum technology. It includes the classi cations of cleanrooms, factors to control the environment and its related facilities, and principles of vacuum pumps and gauges.

EMI3007 Nanotechnology
You will be introduced to the science of nanotechnology, and the tools used to fabricate and characterise nanostructures. The fundamentals of nano-electronics, nano-materials and smart materials will help you to appreciate concepts of nanotechnology. Micro-electromechanical Systems (MEMS), Nano-electro-mechanical Systems (NEMS) devices and applications of nanotechnology will also be covered.

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 re ection and refraction, principles of wave optics (including interference, diffraction and polarisation), fundamentals of bre 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 bres, classi cation of bres, loss mechanisms and dispersion in bres, optical modulation, multiplexing and demultiplexing, 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 ampli ers, passive optical devices, modulators, switches, optical integrated circuits, sensors and photonic devices for imaging, display and storage.

EPL1003 Problem-solving & Process Skills
This subject uses a series of workshop-based lessons to develop your problem-solving and process skills, including the skills needed for time and stress management, self-re ection, self-assessment, team building, inquiry, creative thinking, peer-sharing and evaluation. You

gain con dence in applying these skills through tutor-guided small group activities, self-re ective exercises and peer learning. You are also given a brief introduction to Problem-based Learning to prepare you for this learning approach in the subsequent years of your course.

EPZ2001 Organisational Behaviour
This subject provides you with an insight into the key determinants of individual and group behaviour in an organisation. You will learn how to improve group interaction skills.

EPZ2002 Managing Information in Organisations
This subject deals with how information resource is managed as an asset in an organisation and how it can be processed to support decision-making for managers in organisations. It covers topics such as overview of information and knowledge management, strategies, structures and systems, techniques to process information, and security, moral and ethics in the knowledge economy.

EPZ3001 Customer Relationship Management
This subject provides an overview of the importance of getting close to the customer and the processes that enable an organisation to communicate and relate with its customers. It focuses on managing customer dynamics, as well as attitudes and perceptions in order to create a dynamic and mutually bene cial relationship.

EQE3X02 Quality Engineering
This subject provides an introduction to the concepts and methods in quality engineering. Topics include statistical process control, acceptance sampling, measurement system analysis and total quality management.

EQM2001 Process Management & Innovation
This subject covers the management of processes in creating products and services that customers need and want. Topics include key process planning and improvement, process reengineering, process management, quality function deployment and benchmarking.

ESE1005 Computer Programming
This subject introduces you to the concepts of a stored programme digital computer. It also enables you to acquire knowledge and skills in program designing, as well as testing and debugging using a programming language like Java.

ESE2004 Object-oriented Programming
This subject introduces you to object-oriented programming. All the important phases of software development will also be covered through the use of a modelling language (eg, UML). After developing the necessary skills in the OO language, you will be able to write event-driven graphical user interface (GUI) applications and applets.

ESE2005 Advanced Java Programming
This subject gives you a thorough and deeper understanding of the Java programming language. It focuses on the language fundamentals, with emphasis on the correctness of the language syntax and logic. Some advanced topics such as inner classes, threads, the util package, search and sorting algorithms will also be covered.

ESE2006 Mobile Computing Applications
This subject introduces the concept of mobile services as WAP and Extended HTML (XHTML). Basic XML technology, MySQL DataBase Server and Java Servlets will also be introduced.

ESE3001 Database Management System & Design
This subject focuses on the design and creation of a database using, for example, the Oracle Database System, as well as the development of front-end application software that connects to the back-end databases. The topics covered range from the initial design of the database using modelling tools (Entity-Relationship model using Uni ed Modelling Language), to the re nement of the models using Normalisation techniques, then nally to the learning of the database programming language, Structured Query Language (SQL).

ESE3003 Software Engineering
This subject equips you with an in-depth understanding of software engineering. All important phases of a software development effort will be covered ie, project management, design requirements, design methodologies, software veri cation and maintenance. Emphasis will be placed on the different software designs and testing methodologies in order to gear you towards a more practice-oriented industry.

ESE3005 Palm OS Programming Essentials
This subject equips you with the essential programming knowledge and skills to write applications on the Palm OS platform. You will be able to apply fundamental programming concepts to write simple applications on the platform. The subject is a one-semester hands-on learning subject with a project assignment. Competence in Java programming would be an advantage. The Palm OS programming skills acquired in this subject will gear you towards a more practice-oriented industry.

ESE3006 ASP .NET Web Programming
This subject exposes you to essential programming knowledge and skills to

develop ASP.NET Web applications on the Microsoft.NET platform. Starting with an overview of, and introduction to, different Microsoft.NET related tools and languages, you will be taught to create Web Forms. Data accessing using ADO.NET is also covered.

ESE3007 Computer Game Programming
The primary goal of this subject is to give you an overview of the concepts and techniques used in state-of-the-art 3D game programming. You will learn about the practical implementation of algorithms used in the development of games on a PC platform.

ESE3008 Web Services Development
In this subject, prevailing standards, technologies and concepts in web services such as Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL) and Universal Description Discovery and Integration (UDDI) are covered. Building, deploying and using web services will also be discussed.

ESE3009 Computer Architecture & Operating Systems
This subject introduces you to 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
This subject provides you with an overview of systems concepts and applications of systems thinking. It focuses on how a system or organisation interacts within itself. It includes holistic problem solving, system optimisation and the use of concept maps. Case studies will also be examined.

ESZ1002 Quantitative Methods
This subject provides an introduction to statistical concepts. You will learn to convert data into information through the use of probability, descriptive and inferential statistics.

ESZ2001 Decision Analysis
This subject introduces you to the structure of decision problems and the models applicable to decision analysis. It also covers quantitative decision methods such as linear programming, decision-making models and decision support systems. The use of software applications to facilitate analysis will be explored.

ESZ2002 Process Optimisation & Improvement
This subject provides an overview of the concepts of improvement and optimisation in processes. Some of these concepts involve analysis of statistical control results, experimental designs, variations in processes and improvement techniques. Practical sessions using software applications will be integrated to enhance learning.

ESZ2003 Management Systems & Assessment
This subject deals with the understanding and application of various management system standards such as ISO 9000 and ISO 14000. It provides you with an opportunity to perform assessment audits using these standards and to apply these standards to improve processes.

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 performance. It also covers supply chain drivers and obstacles, aggregate planning, inventories, distribution network, transportation and information technology.

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 will be extensively used as a vehicle to enhance your understanding and practical applications of the subject.

ETW1001 Telecommunications & Systems
This subject covers the principles of analogue and digital telecommunications. Topics include amplitude modulation, frequency modulation, amplitude shift keying, frequency shift keying, phase shift keying, sampling, pulse code modulation, and time/frequency division multiplexing. The subject also gives an overview of some current telecommunication systems with topics including PSTN, PSPDN, ISDN, modem, multiplexer, cable modem, ADSL, GSM, 3G, GPS and GPRS.

ETW2001 Telecommunication Principles
This subject introduces the principles of analogue (AM/FM) radio transmission or reception, and digital transmission. The main application covered is analogue or digital telephony. It also includes an overview of transmission media, such as optical bre cables.

ETW2005 Wireless Technology
This subject introduces the technological trends and development in wireless communications, particularly in personal mobile communication systems. Digital cellular technologies like GSM, GPRS as well as emerging cellular systems such as

3G systems and current trends in wireless technologies will be taught.

ETW2007 Digital Communications
This subject introduces the basic principles and techniques employed in digital communications. Topics include signal analysis, sampling theorem, pulse code modulation, delta modulation and baseband shaping for data transmission, digital modulation techniques, error control coding, spread spectrum modulation and information theory.

ETW3001 Mobile Communications
This subject provides you with the principles and fundamentals of how mobile communication systems work to enable you to keep pace with advancement in mobile communications technologies, such as the 2G, 3G and 4G developments. It will also introduce mobile radio communications and explain commonly used terminologies as well as the radio frequency spectrum. Topics in mobile radio propagation deal with the study of the effects of environment on the communication channel and how it relates to the transmission performance of a mobile network. Topics on cellular concepts provide the fundamentals for cell planning and dimensioning of a mobile network. The cellular system architecture and various types of cellular systems and standards of the latest developments will also be discussed.

ETW3003 Broadband Technologies
This subject provides you with a practical systems-oriented view of broadband networks. You will be introduced to the fundamentals of various technologies and architectures that reside in the Singapore ONE's local access loops. The subject will include topics on data services based on cable and ADSL modems, such as video and audio streaming and VoIP.

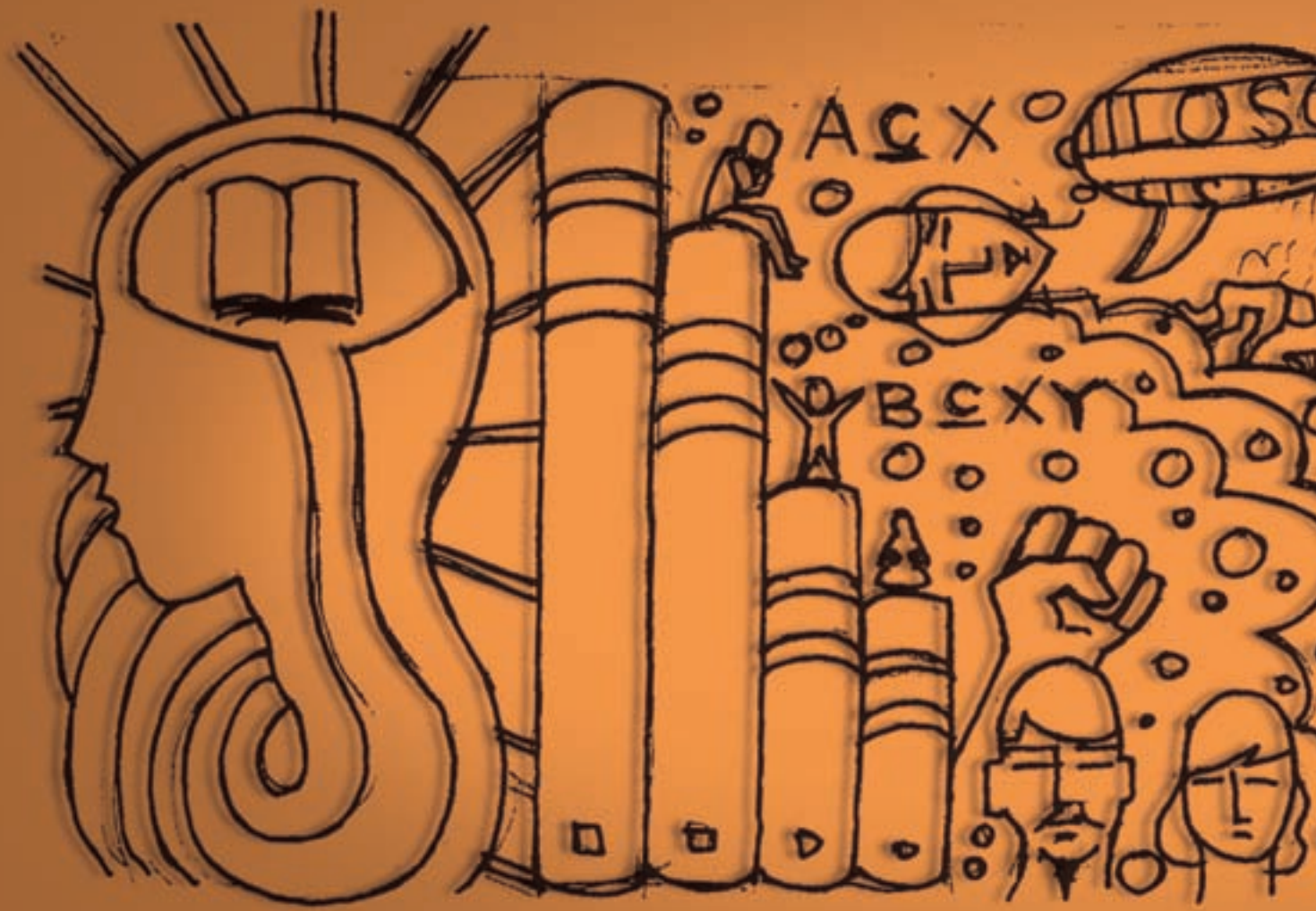
ETW3006 Satellite Communications
This subject provides you with an overview of a satellite communications system. It will cover various components of a satellite communication system and the access techniques used in the satellite communication media. It will also discuss various constraints of a satellite communications system and the regulations regarding satellite spacing in the orbits and satellite stations on the ground. Topics include digital modulation techniques, satellite communication networks, and a discussion of speci c satellite systems such as Global Positioning Systems (GPS).

ETW3009 Digital Broadcasting
This subject provides you with an overview of the engineering principles and practices of two major digital broadcast transmission systems, namely radio and television. You will learn the different signal modulation techniques, fundamentals of antenna design with an overview of analogue broadcasting systems, the digital broadcasting technologies for radio and television, interactive TV, IPTV, HDTV as well as data broadcasting.

EWN3001 Wireless Area Network Technologies
This subject is designed to equip students 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 WiFi, Bluetooth, and RFID.

GCD1001/1002/1003
Applied Principles for Effective Living
Applied Principles for Effective Living, APEL, is a Temasek Polytechnic Core Programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extra-personal Effectiveness). APEL is specially developed to help nurture your dispositions (ie, attitude, skills and knowledge) towards the Principles for Effective Living, hence laying the vital foundation for your life-long success. The principles introduced in this programme are largely derived from applied psychological studies.

Temasek Humanities & Social Sciences School



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253 Psychology Studies

The establishment of the Temasek Humanities & Social Sciences School (HSS) adds a new dimension to Temasek Polytechnic's wide spectrum of existing diploma programmes. The School promotes a broad-based and holistic curriculum that will prepare students to meet the needs and face the challenges of a rapidly changing world.

HSS adopts a multi-disciplinary approach and offers courses in humanities and social sciences with a focus on people-oriented specialisations. It employs a variety of teaching methodologies to facilitate and optimise learning. You will have opportunities to participate in a major project as well as the Student Internship Programme that will enable you to integrate and apply the concepts and skills you have acquired in practical and real-life situations.

HSS graduates will acquire market-relevant knowledge and develop practical and adaptable skills through a curriculum that comprises diploma core and elective subjects. In addition, the polytechnic-wide core modules on character education and lifelong skills help lay the foundation for the graduates' personal and interpersonal effectiveness. It is the ultimate aim of HSS to help each graduate make a difference in their chosen career.

The School has a team of dedicated academic staff from a broad industry background. Their extensive industry knowledge and experience, coupled with many years of curriculum development and teaching experience, help to ensure the quality of the programmes on offer.

Psychology Studies – New!

Imagine having an edge over others in understanding how people think and what makes them behave the way they do. What if you could be in the business of understanding what motivates people and what makes them tick, whilst enhancing their potential and performance? If you enjoy working with people and see yourself in a career which involves getting the best out of them, then look no further.

HSS is proud to launch its first diploma programme, Psychology Studies, to meet the growing demand for graduates with a combination of people skills and specialised expertise.

The focus of the course is on the application of psychology to steer employees towards peak performance in the workplace.

The curriculum lays a broad foundation in the field of psychology that includes the study of personality, perception, cognition, motivation and psychological research methods. In addition, you may opt for electives in the area of Human Capital Management (also known as Human Resource Management).

This unique blend of studies in Psychology and Human Capital Management, balanced with hands-on projects, will provide you with the sound knowledge and practical skills to enhance your employability in the competitive job market.

This course prepares you for a rewarding people-oriented career, in particular, that of a Human Capital Management specialist. If you enjoy learning about people and designing processes to develop them, as well as consider yourself a hands-on problem solver with an aptitude for analytical work, then this course is for you.

> I am happy to note that this... course, which equips graduates with skills and knowledge from the discipline of applied psychology with a strong emphasis on human capital management..., will certainly help to address the industry's demand for skilled para-professionals in areas such as human resource management and development.
>
> Ho Geok Choo
> President, Singapore Human Resources Institute
> Co-chair of Human Resource Manpower Skills and Training Council

Career Opportunities

Our graduates are well poised to join the Human Resource (HR) related industry as HR executives, training and development executives, wellness officers, HR development officers, career planning executives, Human Capital Management (HCM) specialists and management executives. With further on-the-job training, you may enter a wide spectrum of human services, businesses and industries such as advertising, sales and marketing, public relations, law enforcement, social services, workplace safety and health, executive job-matching, and teaching.

Graduates who aspire to become certified psychologists, psychotherapists, psychoanalysts, social workers, counsellors, and HR managers may pursue higher degrees in Psychology, Social Work, Counselling, Human Capital Management (or Human Resource Management), Business Administration or other social science courses.

Minimum Entry Requirements

English Language (EL1)*	Grades 1-6
Mathematics (E or A)	Grades 1-7
Any 3 other subjects, excluding CCA	Grades 1-6

** SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 66 credit units
Elective Subjects	: min 29 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 124 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Psychology Studies

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GCD1001	Applied Principles for Effective Living (APEL 1)	1	1
GCS1001	Communication Skills 1 (Oral)	1	3
GCS1002	Communication Skills 2 (Writing)	1	3
GCD1002	Applied Principles for Effective Living (APEL 2)	2	1
GCD1003	Applied Principles for Effective Living (APEL 3)	3	1
GCS3001	Communication Skills for the Professions	3	3
GIP3001	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BBT1001	Computer Systems & Applications	1	4
GPS1001	Foundation Psychology A	1	4
GPS1002	Foundation Psychology B	1	4
GPS1004	Industrial & Organisational Psychology	1	4
GPS1005	Introduction to Psychological Applications	1	4
GST1001	Statistics for Social Sciences	1	4
GPS2001	Research Methods in Psychology A	2	4
GPS2002	Perception & Cognition	2	4
GPS2003	Physiological Psychology	2	4
GPS2004	Developmental & Lifespan Psychology	2	4
GPS2005	Social Psychology	2	4
GPS2008	Learning & Motivation	2	4
GPS3001	Research Methods in Psychology B	3	4
GPS3002	Assessment & Personality	3	4
GPS3004	Applied Psychology Integrated Project	3	4
GMP3001	Major Project	3	6

Diploma Subjects - Elective Subjects*

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CGE1X01	Introduction to Digital Game Development	1	3
CIC1X03	Introduction to Human Computer Interaction	1	3
CID1X01	Effective E-learning Development	1	3
CIM1X04	Web Database Applications	1	3
CIT1X03	Programming in VBA (Visual Basic for Applications)	1	3
GPS1003	Cross-Cultural Psychology	1	3
BBS2001	Human Resource Management	2	4
BBS2002	Recruitment & Human Resource Administration	2	4
BBS2003	Management of Employee Relations	2	4
GPS2010	Health Psychology	2	3
GPS2011	Psychology for Workplace Safety and Health	2	3
GPS2012	Human Factors Psychology	2	3
BBS3001	Human Resource Development	3	4
BBS3002	Performance & Compensation Management	3	4
GMG3001	Strategic & Change Management	3	3

* Electives offered may vary from year to year.

Cross-Disciplinary Subjects

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

Subject Synopses

BBS2001 Human Resource Management
You will learn the role and responsibilities of line managers/supervisors and how to maximise organisational and employee performance through effective human resource management practices.

BBS2002 Recruitment & Human Resource Administration
Acquire 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
Learn about 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 programmes and learn how these can contribute to organisational effectiveness.

BBS3001 Human Resource Development
This subject provides you with well-rounded knowledge in the eld 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
How much should I reward? This subject explores the design and implementation of performance and compensation management systems. Topics include performance appraisal, pay for performance, salary and incentives administration.

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. Basic theories will be supplemented with hands-on exposure to web page creation and designing, and spreadsheet application.

CGE1X01 Introduction to Digital Game Development
This subject aims to provide you with the basic understanding of how to create a computer game. You will explore and 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 introduces you to the fundamentals of human computer interaction principles and usability evaluation techniques. Particular emphasis will be paid to applied and quality control aspects of the subject. There will be practical experience of usability evaluation processes that can be applied. Topics covered include the history of human factors in technology, human computer interaction principles, interface design guidelines and two usability evaluation techniques.

CID1X01 Effective E-Learning Development
The e-learning work ow of planning, development, implementation and evaluation will be covered. You will apply e-learning principles to the design and development of an e-learning module.

CIM1X04 Web Database Applications
This subject introduces you to the importance of dynamic web database applications. You will learn how to build a simple database and simple web pages. Through the use of web pages, you will connect to a database and select and display data on the web pages. You will also insert, update and delete data from a database via the web pages.

CIT1X03 Programming in VBA (Visual Basic for Applications)
This subject teaches the basics of programming using a commonly available platform such as Microsoft Of ce Excel. You will learn to write macros in VISUAL Basic® for Applications (VBA) language to automate routine tasks and build application solutions in Microsoft Excel. Programming techniques to produce graphical user interface (GUI) components and data processing logic will be taught. You will build usable programs on Excel to generate reports, display charts and statistics or create simple interactive games. This subject assumes that you have some basic experience in Microsoft Excel.

GCD1001/1002/1003
Applied Principles for Effective Living (APEL)
Applied Principles for Effective Living is TP's Core programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extropersonal

Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (ie, attitudes, skills, knowledge) towards the Principles for Effective Living, hence laying the vital foundation for their life-long success. The principles introduced in this programme are largely derived from applied psychological studies.

GCS1001/1002 Communication Skills
Communication Skills 1 and 2, provide you with skills required for more effective oral and written communication in the context of academic and organisational settings.

GCS3001 Communication Skills for the Professions
Topics covered include handling interviews, meeting skills, interpersonal skills, as well as formal writing skills required in various forms of professional and career writing such as project proposals, application letters, resumes and more.

GIP3001 Student Internship Programme
This internship programme is a 10-week attachment to relevant organisations that will enable you to link and practice 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.

GMG3001 Strategic & Change Management
This subject examines the concepts and theories of 'Strategic HR' (which may include succession planning and global HR) and change management. It helps you develop cognitive processes that are crucial to strategic management.

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
These two subjects, Foundation Psychology A and B, provide you with an overall perspective and understanding of psychology as a scienti c 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 and social bases of behaviour.

GPS1003 Cross-Cultural Psychology
This subject examines how cultural factors arising from different geographical, racial, ethnic and cultural groupings in uence the psychological behaviour of individuals. You will also explore various cross-cultural factors and beliefs that in uence cognition, personality, development, health and social interaction.

GPS1004 Industrial & Organisational Psychology
This subject provides you opportunities to apply psychological knowledge, research methods and intervention strategies into industrial and organisational settings. Topics include structure and function of organisations, selection and training, job analysis, performance appraisal, group behaviour, leadership, ergonomics and workplace safety.

GPS1005 Introduction to Psychological Applications
This subject introduces you to the basic applications of psychological principles and theories in inter-personal, intra-personal, group and organisational interactions. Through practical assignments and projects, you will be exposed to possible real-life scenarios within various elds of psychology. You will also learn the importance of professional ethics and social responsibility as practitioners in the eld of applied psychology.

GPS2001 Research Methods in Psychology A
This subject introduces statistical methods used to develop theories, principles and concepts in the eld of psychology. You will build on skills and knowledge gained from Statistics for Social Sciences to apply concepts of inferential statistics as well as principles of research methodology into psychological experiments. Statistical software will be used to augment conceptual understanding and enhance practical experimental design and analysis skills.

GPS2002 Perception & Cognition
Building upon knowledge gained from Foundation Psychology, you will further examine fundamental principles underlying human perception and cognition. Issues including sensory coding and perceptual processing as well as attention, memory, problem solving and decision-making will be explored. This subject engages you in the analytical and experimental approaches in the study of cognitive processes. You will also explore relationships between brain mechanisms and human behaviour.

GPS2003 Physiological Psychology
This subject explores relationships between physiological processes and behaviour, i.e. the examination of brain and behaviour relationships with emphasis on the nervous system functioning, as well as the anatomy and physiology of the sensory systems.

GPS2004 Developmental & Life Span 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.

GPS2005 Social Psychology
This subject explores major theories and research methods in social psychology. You will gain a deeper appreciation of how social conditions affect human behaviour and attitudes as well as how inter-personal, intra-personal and community interactions are affected.

GPS2008 Learning & Motivation
This subject introduces you to the key principles of conditioning and motivation, and research in the psychology of learning. Topics include principles of conditioning as classical and instrumental conditioning; approaches to learning, including acquisition of verbal materials, concepts, and motor skills; memory and transfer. Practical applications of these basic principles in various real-life scenarios will be explored.

GPS3001 Research Methods in Psychology B
This subject builds upon the use of basic research methods and tools of psychological research to address more complex research questions through a variety of research designs and more advanced techniques of statistical analysis. The subject covers advanced application of statistics in psychology such as factorial analysis of variance, and multiple regression.

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.

GPS3004 Applied Psychology Integrated Project
This subject integrates the learning, and application of the various psychology related subjects. This subject engages knowledge and skills learnt from other psychology units into a single integrated project with real world applications.

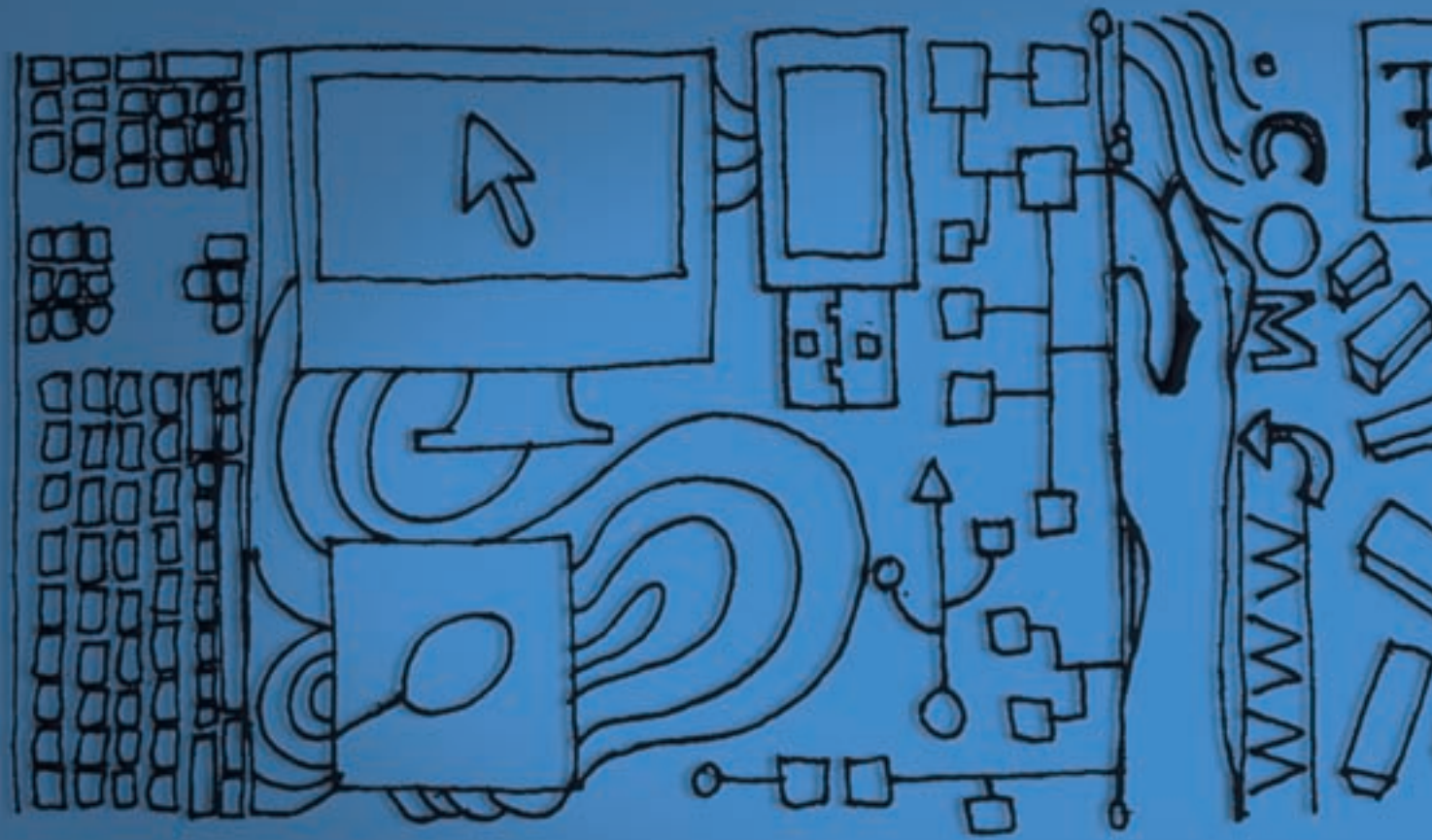
GPS2010 Health Psychology
This subject examines how biology, human behaviour and the social context impact our health and well-being. It will focus on how psychological principles are used to promote health and prevent illness. Using a biopsychosocial model of health and illness, you will learn how to take personal responsibility leading to better health, vigour and vitality, and self-respect.

GPS2011 Psychology of Workplace Safety & Health
This subject explores human perceptual, cognitive and behavioural issues that affect workplace safety and health. You will also apply theories and methods learnt to promote safety, health and well-being of individuals in the workplace and to enhance work environment in order to improve quality and productivity of work life.

GPS2012 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 staff performance and develop effective strategies in human-machine interfaces.

GST1001 Statistics for Social Sciences
The use of empirical evidence and statistical analysis is crucial in the eld of psychology. This subject provides you with a basic understanding and use of statistical concepts in data analysis. Concepts such as descriptive and inferential statistics with emphasis on their applications to psychology will be introduced. You will also acquire knowledge and skills in the use of statistical software in data analysis.

Temasek Informatics & IT School



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Informatics is IT for people. We focus on giving you a strong foundation in IT and an understanding of specialised areas like financial services, digital media and cyber security. With this, you can develop solutions that improve the lives of people.

Our objective is to nurture IT professionals who can contribute con dently to any organisation they join. We emphasise the development of problem-solving and thinking skills, with the aim of cultivating individuals who are independent, analytical and able to respond effectively to the needs of people and organisations. We emphasise communication and teamwork skills because they are key attributes for people working in a global economy. After three years, you will graduate with the qualities and skills to add value to the organisations that you join.

We provide many opportunities for you to develop your talents and skills, so that you can adapt to and meet the demands of a fast changing world. To help you excel and stretch your skills, you will have the chance to participate in various enrichment programmes such as national and international competitions, as well as research attachments to universities.

Through the Student Internship Programme, you will have the chance to gain real life work experience in either local or overseas companies, organisations or research institutes. Our academic architecture enables you to be attached as an intern for up to a year. Such extensive experience will undoubtedly groom you for the challenges of the workplace and give you an edge when you seek employment.

Participation in local and global community projects is something we strongly encourage. You will nd that there are many avenues through which you can be engaged in social outreach projects to help those in need.

To ensure that our curriculum remains relevant to the industry, we work closely with employers and universities to maintain quality, industry relevance and high academic standards. An advisory committee, comprising leading academics from universities as well as industry professionals, advises the School in its strategic direction and development to ensure that the courses you join prepare you well for the future.

Moving from a diploma to a degree is a smooth process as we have advanced standing arrangements with both local and overseas universities.

Competency Units And Specialist Centres

TP-IBM Centre for IT Security

This centre is established on an IBM security framework and technology with the aim to provide training to students in the most current IT security industry and technology trends. Students work in an environment that simulates real life experiences. The centre also promotes industry collaboration by allowing students and staff to undertake relevant industry projects, research and development involving security technology.

Business Process Management Lab

Here, you can become the architect of software solutions to help enterprises better manage their business processes. This lab houses state-of-the-art industry standard software for the analysis and design of information systems and development of software applications. It allows you to learn and explore new ideas with the goal of streamlining business processes for better ef ciency, cost savings or proof of concept for innovative business IT solutions. This in turn will give you the opportunity to explore new market areas.

Computer and Network Security Laboratory – Centurion Centre

This centre provides a exible and realistic IT and network security training environment. It is designed with a fully operational, stand-alone network infrastructure that provides a test-bed for the evaluation of hardware, software and security concepts. It allows you to experiment with security concepts in a realistic environment without the risks and restrictions normally associated with a "live" network. You will be able to set up and secure Internet servers, identi cation management servers, con gure security policy, implement secured e-business transactions, set up an experimental Public Key Infrastructure and perform system con dentiality tests using encryption/ decryption tools.

Game Technology Competency Unit

This unit is established in collaboration with Electronic Arts and XiD. It focuses on game technologies and the application of games in various domains such as education and learning. It also facilitates participation in projects with industry.

Human Computer Interaction Centre

This centre is equipped with real-world facilities for conducting usability testing. It provides an ideal environment for competency training in the usability engineering life-cycle, with the aim of enhancing the user experience of interacting with software applications and information appliances. The Centre has collaborated with companies like Motorola and Honeywell on research projects in usability prototyping and evaluation.

TP-BO Business Intelligence Competency Unit

This unit, established in collaboration with Business Objects Asia Paci c Pte Ltd, aims to facilitate engagement of industrial projects. It is installed primarily with Business Intelligence software from Business Objects, namely, BO Enterprise Premium XI, BO Dashboard Manager XI,

BO Performance Manager, BO Set Analysis XI, BO Data Integrator Professional and Crystal Reports Developer XI.

TP- Avaya IP Telephony Competency Unit

This unit, established in collaboration with Avaya, is equipped with the latest IP-Telephony equipment and software to facilitate engagement in industrial projects. It is used to train Temasek Polytechnic students in the design, development and implementation of IP-based business communication systems and Voice-Over-Internet Protocol (VoIP) applications.

TP-Reuters Investment Banking Operations Competency Centre

This centre is equipped with state-of the-art Reuters information systems. With Reuters premium nancial information terminals, and a fully integrated front to back solution, Temasek Polytechnic students will have the unique opportunity to learn in a live nancial market environment for investment banking and risk management operations.

Cyber & Digital Security

Thanks to the Internet, you can now order books or appliances online, download music and games, chat with your friends, or do online banking 24 hours a day. The flip-side, however, is that the cyber world has also opened the doors to online criminals. Hackers, viruses, phishing and spamming: they grab headlines and pose threats to the security of businesses, governments and individuals, causing financial and social damage on a broad scale.

This course is for people who want to protect the critical information assets of individuals and enterprises and want to earn respect as IT security professionals in the expanding security industry. You will receive a sound education on IT fundamentals to develop your critical thinking, communication and problem-solving skills in software and network systems.

As you progress, you will learn how to identify and detect the abuse and misuse of computers, design counter measures against criminal intrusion, perform penetration testing and ethical hacking to effectively secure systems for businesses. If any system is compromised, you will learn how to perform computer forensic investigations and respond to the incident. Combining your security and business skills, you will learn how to audit and design security policies, apply the legal aspects of IT, and make systems more secure by using biometric technologies such as ngerprint and iris scans.

You will learn through real-life case studies, experience hands-on defend and protect skills in a simulated environment, and nd out about the best practices and standards of industry and government for good security. You will also learn to evaluate the needs of people, identify the best security solutions and pick up business skills such as project management, entrepreneurship, sales and marketing.

> 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.
>
> Teresa Lim
> Managing Director
> IBM, Singapore

The Student Internship Programme and Major Project in the nal year allow you to showcase your knowledge and skills. You will be able to integrate all that you have learned, and put them into real-life practice with hands-on industry exposure. This gives you a head start as you gain experience as a security professional.

Career Opportunities

Security is a major concern to all enterprises. In particular, governments and industries worldwide have forecast a shortage of and high demand for infocomm security professionals. Hence, graduates can expect good employment prospects with local and multinational businesses, governments, nancial and banking institutions, and consulting rms as IT security specialists, IT security auditors, network and systems specialists, and IT security product developers and solution providers.

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
Any one other subject, excluding CCA	-

To be eligible for selection, you must have sat for at least one of the following subjects: Additional Science, Additional Combined Science, Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants with complete/full Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Core Subjects	: 83 credit units
Elective Subjects	: 12 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: 125 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Cyber & Digital Security

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'.

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
GCD1001	Applied Principles for Effective Living 1	1	1
GCD1002	Applied Principles for Effective Living 2	1	1
GCD1003	Applied Principles for Effective Living 3	1	1
CS13001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD1C01	Basic IT Security	1	4
CFI1C04	Systems Analysis	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CIM1Z01	Database Information Systems	1	5
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	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
CCD2C02	Security Application Development	2	4
CCD2C03	Ethical Hacking & Intrusion Prevention	2	4
CCD2C04	Forensics in Digital Security	2	4
CCD2C05	IT Security Management & Audit	2	4
CIM2C06	Database Administration & Security	2	4
CMC2P21	Servers Administration & Security	2	5
CMC2C08	Wired & Wireless Networking	2	5
CMP3601	Major Project	3	10

Diploma Subjects - Elective Subjects*

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1007	Basic Business Finance	1	4
BLO2002	Logistics & Supply Chain Management	2	4
BLO2009	Introduction to Trade & Transport	2	4
BMK2009	Principles of Marketing	2	4
CFI2C03	IT Project Management	2	4
CFI2E01	IT Outsourcing	2	4
CFI2E02	Introduction to IT Systems in Banking	2	4
CGE2E01	Digital Game Development for E-learning	2	4
CID2E01	Immersive 3D	2	4
CID2E02	Web Content Management Systems	2	4
CIM2E01	Healthcare Informatics	2	4
CIT2E05	Technology & Innovation	2	4
CIT2E06	Manufacturing & Logistics Business Informatics	2	4
CMC2E05	IP Telephony	2	4
CMC2E04	Tourism Informatics	2	4
BAF3009	Financial Institutions & Markets	3	4
BMK3007	Principles of Entrepreneurship	3	4
BMK3011	Brand Management	3	4
BMK3012	Sales Management	3	4

Cross-Disciplinary Subjects

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

Financial Business Informatics

Singapore is a key regional financial centre with more than 500 local and foreign banks and financial institutions. It is one of the largest foreign exchange centres in the world and a growing Asia-Pacific centre for wealth management. It is also rated among the top three destinations for bank outsourcing. Join us to be a part of this dynamic global workforce.

This course equips you with the knowledge and skills to be technically and nancially savvy. You will learn how banks and nancial institutions are structured and how they operate in the global nancial markets. It combines training in business processes, systems and management with IT. In this way, you have the chance to be effective in two sectors – the high growth nancial services and the IT industries. This will give you a distinct advantage when you seek employment.

You can choose two possible options of study: Finance or Banking. The Finance option trains you on systems, processes and management of settlement and credit risks of investment products like foreign exchange and money market instruments, securities and derivatives. The Banking option focuses on systems and processes of retail and corporate banking in relation to credit cards, loans and trade nancing.

In the course of your studies, you will learn about nancial systems and structures through playing interesting games that help develop your understanding of banking and investments. You will also learn in laboratories that simulate real trading and banking environments. Our TP-Reuters Investment Banking Operations Competency Centre is equipped with state-of-the-art investment, nancial and risk management data and systems. They enable you to understand the life cycle of an investment deal from inception to settlement.

> This course opens up a new vista for potential entrants to the vibrant financial services sector in Singapore. This is particularly meaningful as the demand for skilled investment, advisory and operation practitioners grows remarkably. Graduates can look forward to a varied career. We are excited to be part of this process.
>
> Terry Lee
> Executive Director
> ACI Singapore – The Financial Markets Association

In your nal year, you will get hands-on experience through attachment to leading banks and nancial institutions. This will also provide you a chance to pick up important people skills so that you develop sensitivity to the needs of clients and organisations.

Career Opportunities

With continuous growth in the nancial services sector and ever increasing use of IT, the employment prospects are very attractive. The nancial services industry remains among the highest paid in Singapore. With unique dual skills in the nance and banking domain and IT, you are well positioned to take on rewarding careers in banks, nancial institutions, and business and IT consulting rms. You can look forward to being successful as a banking and nancial systems consultant, business intelligence analyst, investment analyst or nancial products settlements specialist.

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
Any one other subject, excluding CCA	-

To be eligible for selection, you must have sat for at least one of the following subjects: Additional Science, Additional Combined Science, Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants with complete/full Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 75 credit units
Option Subjects	: 20 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 125 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Financial Business Informatics

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'.

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
GCD1001	Applied Principles for Effective Living 1	1	1
GCD1002	Applied Principles for Effective Living 2	1	1
GCD1003	Applied Principles for Effective Living 3	1	1
CS13001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1007	Basic Business Finance	1	4
CFI1C01	Quantitative Analysis	1	4
CFI1C02	Core Financial Businesses	1	4
CFI1C03	Business Process Management	1	4
CFI1C04	Systems Analysis	1	4
CFI1C05	Information Systems Fundamentals	1	4
CIM1Z01	Database Information Systems	1	5
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CFI2C01	Commercial Off-The-Shelf Implementation	2	4
CFI2C02	Business Intelligence Systems	2	4
CFI2C03	IT Project Management	2	4
CFI2C04	Quality & Service Management	2	4
BAF3009	Financial Institutions & Markets	3	4
CFI3C01	Risk & Governance	3	4
CFI3C02	Wealth Management	3	4
CMP3801	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Finance Option			
BAF2006	Fundamentals of Investment	2	4
BAF2017	Security Analysis	2	4
CFI2P11	Cash Products Processing	2	4
CFI2P12	Derivatives Processing	2	4
CFI2P13	Advanced Derivatives Processing	2	4
Banking Option			
BAF2007	International Finance	2	4
BAF3006	Consumer Banking	3	4
CFI2P21	Card Processing	2	4
CFI2P22	Loan Processing	2	4
CFI2P23	Trade Finance Processing	2	4

Cross-Disciplinary Subjects

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

Game & Entertainment Technology

Get powered up with the latest in software and hardware technologies to get you that game programmer job you are looking for. Specialise in game design and development and get equipped with the knowledge and skills to be part of this exciting industry. Not only will you learn how to use the latest multimedia and animation technologies, you will also learn the programming languages to design and create new games.

This course teaches you the skills to create and design your own games through game patterns, game architecture and game engines. Before you create a winning game, it helps to understand what people look for in a game. There will be ample opportunities for you to nd out and understand this more clearly.

You will learn digital content creation skills like interface design, human computer interaction, 2D/3D character animation, level design and game scripting. You will also study software engineering and programming concepts such as problem solving, object-oriented programming, arti cial intelligence, 3D graphics and game algorithms.

You will also be fully equipped with programming and development skills as you will learn OpenGL and DirectX graphics programming, Graphical User Interface (GUI) programming, bots programming, sound and game engine integration.

To give you a taste of the pace and nature of work in the game industry, you will get an opportunity to work in a related industry and put your technical, organisational and people skills to good use. You will also work on a Major Project to showcase your talent and abilities.

> The gaming industry is booming in Asia. Singapore is in a position to be a leader in this market by providing creative leaders in technology and content. This course provides a great opportunity for students interested in this field to learn the skills needed to be successful.
>
> Chris Thompson
> Vice-President & General Manager
> Electronic Arts Asia

Career Opportunities

Singapore has identi ed interactive and digital media as one of its key research and development areas. You will graduate with the skills to ll the following types of positions: game content developer, mobile game software engineer, graphics software engineer and multimedia application developer.

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
Any one other subject, excluding CCA	-

To be eligible for selection, you must have sat for at least one of the following subjects: Additional Science, Additional Combined Science, Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants with partial or complete Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Core Subjects	: 93 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: 123 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Game & Entertainment Technology

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'.

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
GCD1001	Applied Principles for Effective Living 1	1	1
GCD1002	Applied Principles for Effective Living 2	1	1
GCD1003	Applied Principles for Effective Living 3	1	1
CS13001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CGE1C01	Introduction to Computer Games	1	4
CGE1C02	Game Math & Physics	1	4
CGE1C03	Object-Oriented Game Programming	1	8
CIC1Z01	Computer Systems	1	4
CID1C01	Interface Design	1	3
CID1C02	Web Design	1	4
CIT1C05	Problem Solving & Programming	1	4
CMA1C01	Computing Mathematics 1	1	3
DNT1310	Visual Literacy & Storyboarding	1	4
CGE2C01	Game Design	2	3
CGE2C02	Graphics Development	2	3
CIC2E01	Introduction to 3D	2	4
CID2P11	3D Visualisation & Animation	2	5
CIT2C03	Data Structures & Algorithms	2	5
CGE3C01	The Business of Computer Games	3	4
CGE3C02	Mobile Game Programming	3	4
CGE2C03	Online Game Development	2	6
CGE2C04	Introduction to Game AI	2	4
CGE2C05	AI-Based Game Design & Development	2	4
CMP3701	Major Project	3	10
DIM3335	Sound Design	3	3

Cross-Disciplinary Subjects

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

Information Technology

We live in a digital world of websites, email, instant messaging and personal blogs. Instead of remaining just an ordinary user of IT, and missing half the fun, enrol in this course and be a part of the force that is changing the world. This course equips you with industry relevant knowledge and skills, so you can effectively lead, define, design and implement business improvement projects in the banking, finance, sales and marketing, and other key sectors.

This course equips you with strong fundamental skills which are expected of IT software professionals so that you have the ability to contribute in a meaningful way to the organisations that you join. You have two possible options of study – they are the Electronic-Commerce Technology option which focuses on how to develop e-commerce applications and the Enterprise Computing option which focuses on the development of large scale IT systems for organisations. You will also learn IT project management skills which are essential for an IT professional and the latest web-services development skills.

In your nal year, you will integrate all the knowledge that you have acquired to complete a major project. You will also be attached to either a local or overseas company for work and this will give you the opportunity to gain valuable experience in technical, organisational and people skills so that you have an advantage when you embark on a career in the Infocomm industry.

Career Opportunities

The Infocomm Development Authority has forecast a steady growth in demand for IT professionals. As such, your employment prospects are very good. You will be able to ll positions in software houses, large multi-national companies, banks, insurance companies, transport companies, logistics companies in areas such as project management, software design and development. You will also be well-equipped to be a technopreneur or your very own boss. You may also further your studies at a wide range of universities that offer our graduates advanced standing.

> We have been engaging your students as interns to assist in system development for several years now. They have been eager to learn, resourceful, flexible and creative. In fact, we employed some of them after they graduated and are pleased with their ability to meet the challenges of the IT industry.
>
> Dr Foong Wai Keong
> President and CEO
> Ecquaria Technologies Pte Ltd

Minimum Entry Requirements

English Language (EL1)*	Grades 1-7
Mathematics (Elementary/Additional)	Grades 1-6
Any two other subjects, excluding CCA	Grades 1-6
Any one other subject, excluding CCA	-

To be eligible for selection, you must have sat for at least one of the following subjects: Additional Science, Additional Combined Science, Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

**SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants with complete/full Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 73 credit units
Elective Subjects	: 8 credit units
Option Subjects	: 16 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 127 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Information Technology

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'.

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
GCD1001	Applied Principles for Effective Living 1	1	1
GCD1002	Applied Principles for Effective Living 2	1	1
GCD1003	Applied Principles for Effective Living 3	1	1
CSI3001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CID1C02	Web Design	1	4
CIT1C03	Internet & Information Systems in Organisations	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CIT1C07	Higher Object-Oriented Programming	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CIT2C03	Data Structures & Algorithms	2	5
CIT2C04	Object-Oriented Analysis & Design	2	5
CIT2C05	Database Systems	2	5
CIT2C06	Software Engineering	2	5
CIT2C07	Business Integration Technologies	2	4
CIT2C08	Client-Server Application Development	2	5
CMP3102	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
E-Commerce Technology Option			
CIT2P12	E-Commerce Security & Architecture	2	4
CIT2P13	Enterprise Commerce	2	4
CIT2P16	E-Commerce Solution Development	2	8
Enterprise Computing Option			
CIT2P24	Distributed Systems & Connectivity	2	4
CIT2P26	Enterprise Web Application Development	2	8
CIT2P27	Mobile Device Programming	2	4

Diploma Subjects - Electives Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1007	Basic Business Finance	1	4
BLO2002	Logistics & Supply Chain Management	2	4
BLO2009	Introduction to Trade & Transport	2	4
BMK2009	Principles of Marketing	2	4
CCD2E01	Identity & Authentication Technologies	2	4
CFI2E01	IT Outsourcing	2	4
CFI2C03	IT Project Management	2	4
CFI2E02	Introduction to IT Systems in Banking	2	4
CGE2E01	Digital Game Development for E-Learning	2	4
CID2E01	Immersive 3D	2	4
CID2E02	Web Content Management Systems	2	4
CIM2E01	Healthcare Informatics	2	4
CIT2E05	Technology & Innovation	2	4
CIT2E06	Manufacturing & Logistics Business Informatics	2	4
CMC2E04	Tourism Informatics	2	4
CMC2E05	IP Telephony	2	4
BAF3009	Financial Institutions & Markets	3	4
BLM3015	Intellectual Property, Media Law & Ethics	3	4
BMK3007	Principles of Entrepreneurship	3	4
BMK3011	Brand Management	3	4
BMK3012	Sales Management	3	4

Cross-Disciplinary Subjects

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

Interactive Media Informatics

Media is no longer static, it is interactive and exciting. From web applications, 3D animation, videos, digital graphics interfaces to immersive 3D, these technologies are rapidly changing the landscape of the media industry. Get the chance to explore all of them and be trained in design and IT fundamentals so you can create vibrant and practical applications for people and organisations. Join us and pick up skills that enable you to revolutionise the way people interact on the Web.

On completing the course, you will be able to create interactive websites and multimedia applications that include 2D and 3D animation, digital videos, graphics and special effects. To do this well, you will be equipped with a strong foundation in IT and digital design fundamentals so that you can create exceptional works for organisations and businesses.

In your second year, you can choose to specialise in 3D Visualisation & Animation, Distributed Multimedia or Edumatics. All of these will prepare you for interesting, long-term careers in the digital media industry or the education sector.

In your third year, you will also have the opportunity to gain experience working on real life projects. This will give you an edge in building up your portfolio and give you a chance to gain experience in creating and designing solutions that enrich people and organisations.

Our students have been involved in major web development and interactive project assignments while studying at TP. These include an interactive photo heritage site for the National Day Parade website 2007, Ministry of Finance Goods and Services Tax (GST) Offset animation clip and the President's Challenge logo animation – just to name a few.

> This is a forward-looking course that engages the emerging and converging information technologies and interactive digital media industries. This will enable graduates of the course to leverage on growing demands for IDM professionals.
>
> John Treloar
> APAC Education Director
> Adobe Systems

We believe that creative minds inspire creative works. As such, there will be ample opportunities for you to discover and display your creativity. Join us and we'll enrich you.

Career Opportunities

This course will produce graduates with the core competencies in IT and an understanding of how people use and interact with technology. Graduates will then be able to propose and implement technology solutions to problems encountered in the area of interactive media. Job opportunities for graduates include web designer/developer, Internet applications developer, game designer/programmer, interface designer, webmaster, systems programmer/analyst, information systems of cer, content developer, educational technologist and educational applications developer.

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
Any one other subject, excluding CCA	-

To be eligible for selection, you must have sat for at least one of the following subjects: Additional Science, Additional Combined Science, Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology)

**SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants with partial or complete Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 70 credit units
Elective Subjects	: 12 credit units
Option Subjects	: 13 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 125 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Interactive Media Informatics

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'.

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
GCD1001	Applied Principles for Effective Living 1	1	1
GCD1002	Applied Principles for Effective Living 2	1	1
GCD1003	Applied Principles for Effective Living 3	1	1
CS13001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIC1Z01	Computer Systems	1	4
CID1C01	Interface Design	1	3
CID1C02	Web Design	1	4
CID1C03	Digital Tools & Techniques	1	3
CID1C04	Multimedia Project 1	1	4
CIM1Z01	Database Information Systems	1	5
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
DNT1301	Visual Literacy	1	3
CIC2E01	Introduction to 3D	2	4
CID2C01	Interactive Multimedia	2	5
CID2C03	Human Computer Interaction	2	4
CID2C05	Multimedia Project 2	2	4
CID2C06	Digital Media Production Foundation	2	3
CMP3501	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
3D Visualisation and Animation Option			
CID2P11	3D Visualisation & Animation	2	5
CID2P12	3D Production Foundation	2	4
CID2P13	3D Special Effects	2	4
Distributed Multimedia Option			
CID2C02	Web Application Development	2	4
CIT2C06	Software Engineering	2	4
CID2P21	Distributed Broadband Multimedia	2	5
Edumatics Option			
CID2P41	Introduction to General Pedagogical Approaches for Learning	2	4
CID2P42	Understanding Instructional Design	2	4
CID2P43	Building Learning Activities	2	5

Diploma Subjects - Electives Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1007	Basic Business Finance	1	4
CCD2E01	Identity & Authentication Technologies	2	4
CFI2E01	IT Outsourcing	2	4
CFI2E02	Introduction to IT Systems in Banking	2	4
CFI2C03	IT Project Management	2	4
CIM2E01	Healthcare Informatics	2	4
CIT2E05	Technology & Innovation	2	4
CIT2E06	Manufacturing & Logistics Business Informatics	2	4
CMC2E04	Tourism Informatics	2	4
CMC2E05	IP Telephony	2	4

Diploma Subjects - Electives Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF3009	Financial Institutions & Markets	3	4
BLM3015	Intellectual Property, Media Law & Ethics	3	4
BLO2002	Logistics & Supply Chain Management	2	4
BLO2009	Introduction to Trade & Transport	2	4
BMK2009	Principles of Marketing	2	4
BMK3007	Principles of Entrepreneurship	3	4
BMK3011	Brand Management	3	4
BMK3012	Sales 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 & Wireless Computing

Wireless technology enables people to stay connected with others wherever they are. Mobile technology provides the freedom to move and access digital information anywhere, anytime. Together, these technologies have changed the way we live, communicate, do business and entertain. Emerging trends in these technologies have opened up tremendous opportunities for scientists to develop systems that make the work smaller and the quality of life better. Businesses can now innovate and transact without concerns about borders and boundaries. The future belongs to the wireless world!

This course has been designed to produce a new breed of IT specialists who are well-versed in the mobile and wireless technologies and their application in the business world. It starts by introducing various core IT technologies such as web design and networking and computing techniques such as programming and application development. These will lay the foundation for the IT core competencies. It then introduces the speci c skills required for designing and developing wireless systems for the business world. You will be able to specialise in either Business Solutions or Business System Infrastructure. The Business Solutions specialisation focuses on the application of mobile technologies in speci c mobile commerce contexts. The Business Systems Infrastructure specialisation focuses on designing and implementing suitable wired and wireless networks for mobile commerce and other industries.

In your nal year, you will be able to choose elective subjects to broaden your technical knowledge and business know-how. You will then embark on an exciting and realistic team-based nal-year project related to your specialisation. You will also have an opportunity to be attached to either a local or overseas company as an intern to gain real life work experience, build people skills and enhance your employability.

> Today's world is one of mobile enterprise, making advanced technologies like unified communications critical. As a leader in IP Telephony, Avaya is confident that this course puts its students in good stead to meet with the increasing demand for such business technologists to contribute to the economy.
>
> K K Chan
> Chief Operating Officer, ASEAN
> Avaya Singapore Pte Ltd

Career Opportunities

As the adoption of mobile technologies is such a rapidly expanding area of business, it is anticipated that there will be a high demand from industry for graduates of this programme. On successful completion, you could enter a variety of challenging and rewarding careers in areas such as mobile business application development, user-support management in networking organisations, and analysis and adoption of mobile technologies in speci c business contexts.

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
Any one other subject, excluding CCA	-

To be eligible for selection, you must have sat for at least one of the following subjects: Additional Science, Additional Combined Science, Chemistry, Combined Science, Design & Technology, Engineering Science, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry, Biology).

** SPM/UEC holders must have a minimum grade of 6 for their Bahasa Inggeris (Paper 122/Paper 322)/ Communication English or English Language (for UEC holders).*

Note: Applicants with complete/full Colour Appreciation Deficiency are not eligible to apply.

Graduation Requirements

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 74 credit units
Option Subjects	: 16 credit units
Elective Subjects	: 8 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 128 credit units

At A Glance

Duration: 3 years full-time

Qualification: Diploma in Mobile & Wireless Computing

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'.

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
GCD1001	Applied Principles for Effective Living 1	1	1
GCD1002	Applied Principles for Effective Living 2	1	1
GCD1003	Applied Principles for Effective Living 3	1	1
CS13001	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CID1C02	Web Design	1	4
CIT1C03	Internet & Information Systems in Organisation	1	4
CIT1C04	Fundamentals of Database Systems	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CIC2C01	Operating Systems	2	5
CIT2C03	Data Structures & Algorithms	2	5
CIT2C06	Software Engineering	2	5
CMC2C02	Mobile Database Systems	2	5
CMC2C08	Wired & Wireless Networking	2	5
CMC2C09	Server Side Software Development	2	5
CMP3401	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Business Solutions Option			
BBT1006	E-Business Management	1	4
CMC2P11	Mobile System Development	2	4
CMC2P12	Mobile System Implementation & Deployment	2	4
CMC3P06	Mobile Commerce System & Development	3	4
Business Systems Infrastructure Option			
CCD2C05	IT Security Management & Audit	2	4
CMC2P21	Servers Administration & Security	2	4
CMC2P23	Internetworking Technologies	2	4
CMC3P22	Mobile & Wireless Security	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD2E01	Identity & Authentication Technologies	2	4
CFI2E01	IT Outsourcing	2	4
CFI2C03	IT Project Management	2	4
CFI2E02	Introduction to IT Systems in Banking	2	4
CIM2E01	Healthcare Informatics	2	4
CIT2E05	Technology & Innovation	2	4
CIT2E06	Manufacturing & Logistics Business Informatics	2	4
CMC2E01	Personal Area Wireless Network	2	4
CMC2E04	Tourism Informatics	2	4
CMC2E06	VOIP System & Application	2	4
CMC3P11	Wireless Technology & Services	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 you with a general overview of the balance sheet and pro t 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 nancial tools and techniques used by the nancial manager in the management of funds and other nancial resources.

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, xed-income securities and alternative investments.

BAF2007 International Finance
This subject equips you with the practices of nancial 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.

BAF2012 Introduction to Business Finance
This subject provides you with a general overview of the balance sheet and pro t and loss statement of the company. It will also provide a basic understanding of the sources and allocation of funds within a business enterprise, and an appreciation of some of the nancial tools and techniques used by the nancial manager in the management of funds and other nancial resources.

BAF2017 Security Analysis
This subject covers nancial tools and techniques to make decisions in selecting individual securities. Topics include technical analysis, fundamental economics-industry-company analysis and ef cient market concepts.

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 nancial services are marketed.

BAF3009 Financial Institutions & Markets
This subject provides you with a comprehensive overview of the nancial system structure in Singapore. You will learn the role and functions of the various nancial institutions and how these institutions provide nancial support to different types of business organisations and individual clients.

BBT1006 e-Business Management
This subject exposes you to the different types of e-commerce/e-business models. You will also learn about Internet marketing and retailing and managing customer relations and identifying ecommerce/e-business strategies and implementation.

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.

BLM3015 Intellectual Property, Media Law & Ethics
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 will also address ethical issues and considerations in news reporting and gathering.

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 in logistics, covers the contribution of logistics to the economy, and examines other trends such as outsourcing and third-party logistics (3PL). You will also be given hands-on experience in using computer software to simulate the bull-whip effect in the supply chain.

BLO2009 Introduction to Trade & Transport
This subject provides an introduction to trade and transport in the global environment. It embraces the scope and rationalisation to world trade. Barriers to and liberalisation of trade including the role of the World Trade Organisation and regional treaties will be discussed. The subject also deals with customs processes and documentation, the roles of freight forwarders and services offered to support free trade. Hand-on sessions on transportation software will also be carried out. To ensure that the subject is up-to-date, the recent trends in transport industry will be discussed.

BMK2009 Principles of Marketing
This subject provides an integrated introduction to marketing. A managerial approach will be employed to build a broad basic range of skills needed to sense, serve and satisfy customer needs now and in the future. Key topics include the environmental forces affecting the marketing process, tools used by modern marketers and the key marketing mixes.

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 opportunities to conduct eld research to identify, evaluate and select viable businesses. You will then prepare basic business plans.

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 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 of sales management.

CCD1C01 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 security systems development lifecycle, and learn 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.

CCD2C02 Security Application Development
This subject introduces security applications that are used in the industry today. You will learn about the technologies and industry trends behind the security applications. You will also learn about technologies such as biometrics and encryption. You will be equipped with the skills and knowledge to analyse and critique security applications in terms of their usability as well as their ability to secure IT and other systems. At the end of the module, you will design and develop a security application based on a given problem situation, using appropriate methods, tools and techniques.

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, 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 aims to develop digital forensics practitioners who are able to investigate and draw conclusions based on evidence found, using various techniques and tools to conduct liturgical and non-liturgical investigations. It 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 traf c capture and analysis will also be discussed and investigated for the tracing of speci c 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.

CCD2E01 Identity & Authentication Technologies
This subject covers basic elements of identi cation and authentication in IT security. It provides a foundation for the discussion of basic concepts and security standards used in an authentication framework. You will learn about the implementation of authentication mechanisms in relation to strategies to minimise identity thefts in an Internet-enabled society. You will understand the principles and phases of authentication, and will learn theoretical and practical aspects of technologies available for identi cation and authentication.

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 focuses on the use of appropriate and effective skills in the workplace. You will be trained in job search and job interview skills. The range of writing includes effective memos, emails and business letters. Tasks will be set for you to acquire skills to manage con icts and meetings in the workplace. You will be taught to consider the message, audience, purpose and strategy in all aspects of communication.

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.

CFI1C01 Quantitative Analysis
This subject equips you with the skills to formulate, analyse and interpret data. You will be able to evaluate quantitative information that is presented in various formats. In particular, you will be exposed to methods of data analysis that are useful in business environments. Apart from the fundamental concepts of statistical analysis, you will also learn to use statistical software to analyse data.

CFI1C02 Core Financial Businesses
This subject provides you with an overview of key functions and processes in banks and nancial institutions. These include treasury and core banking processes as well as their supporting systems and technology that are used to meet strategic, operational and regulatory requirements.

CFI1C03 Business Process Management
This subject helps you understand the concepts of information and processes in businesses, and apply them to model, analyse and streamline processes in organisations. It will cover business functions and processes, process modelling and analysis techniques, process management technologies, as well as train you on a systematic approach to streamline and automate business processes.

CFI1C04 Systems Analysis
This subject introduces the theory and practice of systems analysis in the problem de nition, requirements analysis and logical design phases of an application project life cycle. It will enable you to undertake, in a methodical manner, the analysis of a given problem situation, to produce a de nition of user requirements and to design an appropriate information system from the requirement speci cations, using appropriate methods, tools and techniques.

CFI1C05 Information Systems Fundamentals
This subject help you understand the makeup of information systems (IS), appreciate the organisational context in which they are used, and evaluate the ethical and social issues related to IS. It introduces you to the various types of information systems including the hardware and software components. Issues such as computer crimes and privacy will also be covered.

CFI2C01 Commercial Off-The-Shelf Implementation
This subject introduces you to the various commercial application software packages typically used by organisations. It also exposes you to the different methods, tools and techniques to aid in the selection, implementation and integration of vendor packages to meet business information requirements.

CFI2C02 Business Intelligence Systems
This subject introduces you to concepts and techniques of turning raw data from various sources into information to help companies better manage their performance. You will learn to integrate data and organise the data into analytical reports that serve to increase the business intelligence quotient of an organisation. You will also

examine data mining and data warehousing concepts and business intelligence application principles.

CFI2C03 IT Project Management
This subject helps you understand how successful IT projects are effectively managed so that projects are completed on time, within budget and meet customer's needs. It will introduce you to the key processes from project initiation to project closure. Topics covered included project planning, project monitoring and control, project scope management, project time management, project cost management, project human resource management, project quality management, project risk management, and project implementation and closure.

CFI2C04 Quality & Service Management
This subject introduces you to the concepts of service level agreements (SLAs) and operational level agreements (OLAs), and the content of these agreements. You will also learn incident management, problem management, change management and con guration management. It will equip you with the knowledge to manage IT solution providers and outsourcing companies to deliver the expected service levels for the organisation.

CFI2E01 IT Outsourcing
This subject introduces you to the global trend in IT outsourcing. Topics covered include the rationale for outsourcing, types of outsourcing, contract management, service management, relationship management, and the risks and legal issues involved in outsourcing.

CFI2E02 Introduction to IT Systems in Banking
This subject provides you with an overview of the various IT systems and processes used in banking institutions. Topics covered include the roles and functions of key banking institutions, input and output technologies, interbank settlement systems, e-banking, customer relationship and marketing systems, and security implementations and issues related to IT systems.

CFI2P11 Cash Products Processing
This subject aims to help you understand the basic foreign exchange, money market, securities and equities assets that are widely traded internationally. It prepares you in the execution, control and management of the involved processes and familiarises you with relevant application systems.

CFI2P12 Derivatives Processing
The aim of this subject is to introduce you to the concepts of exchange traded derivatives and plain vanilla derivatives and the underlying products they are derived from. It prepares you in the processing of the underlying trades from their inception to their nal settlement. In addition, monitoring, handling and mitigation of the credit and settlement risks will also be introduced.

CFI2P13 Advanced Derivatives Processing
The aim of this subject is to assist you in understanding the various types of advanced nancial derivatives and structured deposit instruments, and issues relating to their processing ow. It will also introduce the concepts of collateral management, their applicability to nancial products and the processes involved.

CFI2P21 Card Processing
This subject introduces you to the processing of banks' consumer and commercial credit and debit accounts. It covers credit processing, authorisation and transaction processing, credit billing and accounting processes.

CFI2P22 Loan Processing
This subject introduces you to loan origination processing which includes credit application processing, automated credit decision making, and closing documentation preparation. In addition, loan servicing processing is also introduced and this includes customer service and payment processing.

CFI2P23 Trade Finance Processing
This subject introduces you to the various processes which are found in a typical trade nancing setting. These processes include documentary credits, guarantees and nancing, negotiations, and foreign collections.

CFI3C01 Risk & Governance
This subject introduces you to the Monetary Authority of Singapore (MAS) regulations and risk management guidelines for nancial 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 you to the nancial 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 process, cash ow and credit management, insurance planning, tax planning, estate planning, retirement planning, and investment and portfolio management.

CGE1C01 Introduction to Computer Games
This subject introduces you to the different aspects of games and game development. It also provides you with an overview of the necessary tools required to ef ciently complete content creation in game projects.

You will learn to design a game of moderate complexity and describe the components of a game system. You will also learn how to identify the skill sets required to build the components of a game.

CGE1C02 Game Math & Physics
The aim of this subject is to equip you with the mathematics and physics concepts, principles and formulas that are crucial to developing games that look realistic. At the same time, the subject will equip you with the ability to implement these concepts in programming.

CGE1C03 Object-Oriented Game Programming
This subject introduces you to the pointer-based object-oriented game programming language required for game applications. It teaches you the principles and rationale behind the object-oriented approach to programming in the context of game development. Concepts, practical exercises and assignments will focus on the game development perspective so as to equip you with the necessary skills to develop programs for games.

CGE2C01 Game Design
This subject introduces the mechanisms of game design and the concept of a game project software production cycle. It covers players' behaviours and how the successful game design of various game genres and mixed-mode game playing can leverage on basic instincts of the player to motivate him and generate game re-playability.

CGE2C02 Graphics Development
Computer graphics play an essential role in computer game development. In this subject, you will learn the fundamentals of 2D and 3D graphics technologies and use them to develop casual computer games.

CGE2C03 Online Game Development
This subject teaches the essentials for building online games and enables you to develop a client-server system via a Local Area Network or Internet. Performance issues to address persistent state of game playing and network related issues will be covered.

CGE2C04 Introduction to Game AI
This subject introduces the application of basic Arti cial Intelligence (AI) techniques into the game development process. Basic AI techniques to give game character intelligence are introduced and the role of AI within the game development life cycle is covered.

CGE2C05 AI-Based Game Design & Development
This subject introduces the application of basic symbolic and non-symbolic Arti cial Intelligence (AI) techniques into game design and development processes. The use of different game development models in game production is also covered.

CGE2E01 Digital Game Development for E-learning
This subject aims at exploring digital games and their role in higher education for creating effective e-learning materials. You are introduced to the fundamental techniques of digital game development and the concepts for creating e-learning materials. You will learn the different ways of incorporating digital games for e-learning purposes.

CGE3C01 The Business of Computer Games
This subject introduces you to the value chain in the computer game industry, touching on console manufacturers, game publishers, distributors, retailers and consumers. You will also learn about and appreciate the role of marketing, security and e-payment in the game business.

CGE3C02 Mobile Game Programming
With mobile devices becoming more popular, game companies are investing heavily in mobile games that can communicate across various platforms and operating systems. This subject equips you with programming knowledge and skills to develop mobile games into the common mobile devices currently available in the market.

CIC1C05 Computer Architecture
This subject introduces you to the architecture and organisation of the digital components of computer systems. Topics include data representation, digital logic, central processing unit (CPU), memory, input/output interfacing, and the organisation of these subsystems into any modern computer system. The module begins with the standard Von Neumann Model, followed by contemporary architectural concepts.

CIC1C06 Data Communications & Networking
This subject concerns the exchange of data among workstations in a networked environment. You will be taught both 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, computer networks and their associated standards.

CIC1Z01 Computer Systems
The subject covers the concepts and architecture of a stored-program digital computer system and provides an understanding of the characteristics and the operating principles of the main hardware and software components of a computer system. It also covers the basic concepts of computer networking and internetworking.

CIC2C01 Operating Systems
This subject focuses on the fundamentals and principles of operating systems and implementation. It includes mutual exclusion and synchronisation, process management, scheduling algorithms, memory management, device management and le systems. It also teaches concepts that are applicable to a variety of operating systems. An overview of system security and protection will also be covered.

CIC2E01 Introduction to 3D
This subject covers the fundamentals of creating 3D objects and environments for animation. You will learn basic 3D concepts relating to model making, animation and rendering techniques. These skills will be applied to multimedia, games and Internet applications using current technology.

CID1C01 Interface Design
This subject covers the fundamentals, concept and design theories for user interface development.

CID1C02 Web Design
This subject will cover the basic characteristics of multimedia elements and the underlying technologies behind text, graphics, animation, audio and video. You will learn to use multimedia and web authoring tools to create a multimedia website based on sound design principles.

CID1C03 Digital Tools & Techniques
This subject will enable you to create effective visuals using appropriate tools and techniques. It covers the fundamental concept and design systems for digital media production.

CID1C04 Multimedia Project 1
This subject covers concept development and documentation. You will learn to integrate design theories and processes to solve a design problem. In addition, through the creation of personal portfolios you will demonstrate critical thinking and evaluation of design solutions and processes.

CID2C01 Interactive Multimedia
This subject covers the technologies for developing an interactive multimedia application. The design and development phases of an interactive multimedia project will also be covered so that you will be equipped with the knowledge and skills to implement an interactive multimedia application.

CID2C02 Web Application Development
This subject aims to provide you with the skills to develop web-based applications. You will acquire skills to develop data-driven web-based applications that connect to and update databases using a web programming language. Technological and design issues of web-based application development will be discussed to provide a strong foundation in the web programming paradigm.

CID2C03 Human Computer Interaction
This subject will provide you with an understanding of the concept of usability and the importance of user-centred design. You will learn to apply usability principles and use them in the design of interfaces. You will also be equipped with the knowledge and skills to conduct a usability evaluation and present their ndings and recommendation in a report. The subject will cover concepts, theories and applications of human computer interaction, as well as the user-centred design methodology and various usability evaluation paradigms.

CID2C05 Multimedia Project 2
This subject provides you with the knowledge and hands-on practice to build exible and dynamic interactive multimedia applications. In addition, it will also cover the design issues and technologies for developing interactive multimedia applications for a variety of platforms.

CID2C06 Digital Media Production Foundation
This subject covers the characteristics and applications of different types of digital media. Tools and techniques for capturing, editing, encoding, and publishing digital media contents will also be covered in depth.

CID2E01 Immersive 3D
The aim of this subject is to equip you with the necessary knowledge, understanding and practical skills to develop immersive 3D systems. This subject will cover the fundamentals of immersive 3D systems development and their use in various domains.

CID2E02 Web Content Management Systems
The aims of the subject are to provide you with the knowledge of identifying content types and establishing a work ow for editing and approving content. This subject will cover the design and implementation of a Content Management System (CMS). You will also learn to delegate content creation to author and editor roles and publish information content using database plug-in modules.

CID2P11 3D Visualisation & Animation
The aims of the subject are to provide you with the knowledge and skills to function in a 3D content creation team. The subject covers the technical knowledge and design skills to create 3D models and animations for use in any real-time rendering system (RTRS). You will be required to design, build and animate 3D posable characters (posables) in a 3D scene that will be played back in a RTRS.

CID2P12 3D Production Foundation
This subject introduces you to the 3D animation production pipeline. It allows you to understand how production pipeline works and how it ts into the animation process. This subject covers the realities of team-based production environments. You will be required to work in a team to produce a short animation clip and to appreciate the various roles within a production pipeline.

CID2P13 3D Special Effects
The aims of the subject are to provide you with an understanding of the process for 3D special effects and compositing in multimedia projects. In addition, the subject also equips you with an understanding of different techniques of special effects and compositing. You will also be expected to integrate various special effects techniques into various motion graphics platforms such as video, animation and Flash video.

CID2P21 Distributed Multimedia
The subject will cover distributed media concepts at a high level, focusing on the development of rich Internet applications using an appropriate development tool. You will learn the basic architecture of distributed media systems, and be able to make an analysis and comparison of the various solutions available to the developer. You will develop a number of distributed media applications, with emphasis on interactivity, streaming, appropriate graphic user interface, and performance. You will also analyse current applications of distributed media through speci c examples and case studies, and design solutions for speci c problems and application areas.

CID2P41 Introduction to General Pedagogical Approaches for Learning
This subject will give you a foundation in learning pedagogy. You will be introduced to general pedagogical approaches in learning and its role in learning. The subject will cover major principles of pedagogy and how it is applied in learning for both traditional and merging environments. Key pedagogic concepts and terminology will also be introduced to enable you to develop and implement learning activities.

CID2P42 Understanding Instructional Design
The basic processes and principles of instructional design will be covered in this subject. You will study instructional design concepts and discuss the merits of the methods available. The subject will also explore new and traditional instructional design models and discuss the application of such models to its related environments. The stages of instructional design and in particular the collection of data on ID will be taught. You will also be trained in making an ID proposal.

CID2P43 Building Learning Activities
In this subject, you will learn the process and principles involved in building learning activities for a variety of environments, and work on a proposed learning activity. You will be synthesising the learning activities with the needs and pedagogy requirement and building an activity. This activity will be implemented, tested, documented and evaluated by you to meet the needs of the proposal.

CIM1Z01 Database Information Systems
This subject introduces you to the fundamental concepts of relational database systems and the techniques of designing relational databases. It will also equip you with the necessary skills to formulate queries and use simple web forms for information system development.

CIM2C06 Database Administration and Security
This subject introduces you to the importance of managing data to support critical organisational functions. It will examine the exploitation of database vulnerabilities and in particular, focus on enterprise database installation, creation and administration, user administration, audit system, database backup and recovery, as well as disaster recovery.

CIM2E01 Healthcare Informatics
This subject introduces you to the concepts of healthcare informatics. It teaches key principles, methods, and applications necessary for personnel to provide access to timely, complete, accurate, legible and relevant healthcare information. In addition, you are introduced to healthcare information system standards and the security of healthcare information systems. The main focus of the subject is the application of information systems to various activities within healthcare organisations.

CIT1C03 Internet & Information Systems in Organisations
This subject helps you understand the role of information systems in businesses, the organisational context in which they are used, and evaluate the ethical and social issues related to IT. It covers the concepts of information and processes in businesses and introduces you to the various types of information systems. It emphasises how businesses leverage on IT and the Internet to manage their information and processes for their competitive advantage. Ethical issues will also be covered.

CIT1C04 Fundamentals of Database Systems
This subject aims to equip you with the necessary skills to enable you to de ne and manipulate relational databases in a multi-user environment, using languages of notable industry standards. It covers the fundamental concepts of relational databases, and concepts and techniques of database security.

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. The topics covered include the basics of problem solving and programming concepts and structure, simple data structure and programming techniques to design and develop programs regardless of a computer language.

CIT1C06 Object-Oriented Programming

This subject introduces you to an object-oriented programming paradigm. It aims to teach you the principles and rationale behind an object-oriented approach to programming, as well how to develop applications using an object-oriented programming language.

CIT1C07 Higher Object-Oriented Programming

This subject focuses on developing in-depth competency in object-oriented technology. Your programming skills will be further enhanced through a project you work on. The knowledge acquired will enable you to gain greater competence in program design and development.

CIT2C03 Data Structures & Algorithms

This subject introduces you to the concept of recursion. You will also learn various methods of storing and manipulating data to solve problems with the help of linked list, stack and queue data structures and sorting and searching techniques. You will be able to explain various sorting and searching algorithms to analyse their time and space complexity.

CIT2C04 Object-Oriented Analysis & Design

This subject introduces you to object-oriented analysis and design (OOAD). It aims to teach both the theoretical and practical aspects of conducting problem analysis and software design using object-orientation and the use case approach. The Uni ed Modelling Language (UML) is used as the basic notation. Topics covered include object-oriented analysis and object-oriented design, including design patterns. A suitable CASE tool will be used to capture the various OOAD artefacts in a manner that is easy to communicate, review, implement and evolve.

CIT2C05 Database Systems

The subject introduces fundamental principles of relational database systems and the techniques of database programming for database application development. It will enable you to contribute effectively as database analysts and programmers in commercial database development projects employing traditional and emerging technologies. It also introduces theory and practice of database design and implementation and provides you with a good understanding of modern database systems and multi-user database application development. You will be exposed to industry trends and have the skills and knowledge to successfully employ relational database technologies in an enterprise-wide computing environment.

CIT2C06 Software Engineering

This subject aims to provide an overview of the entire software life cycle from development to deployment and nally maintenance of a software project. Topics such as software development paradigms, software process metrics, change management, software quality assurance and the fundamentals of project management will be covered.

CIT2C07 Business Integration Technologies

This subject aims to provide you with knowledge of the various business integration technologies such as adoption of Service-Oriented Architecture that facilitates the development of enterprise applications as modular business services that can be easily integrated, creating a truly exible, adaptable IT infrastructure. You will be able to apply the knowledge to propose business solutions to real world problems.

CIT2C08 Client-Server Application Development

This subject provides you with the fundamental knowledge of client-server application development. It builds on and hones the foundation programming skills you acquired in earlier levels. You will learn how to design and implement a graphical user interface (GUI) based on design concepts and principles. You will also acquire problem-solving skills, knowledge of application development tools and advanced programming techniques required to develop applications for platforms that include PCs and mobile devices.

CIT2E05 Technology & Innovation

The aim of this subject is to provide you with the understanding of how companies employ innovation to secure competitive advantage in the marketplace. You will learn a systematic approach to incorporating the process of innovation in organisations, the importance of intellectual property laws to protect innovation and the process of transforming new technology into a new product or service in the marketplace.

CIT2E06 Manufacturing & Logistics Business Informatics
This subject aims to provide you with the skills to exploit information technology to support the growing needs of the manufacturing and logistics sectors. The subject focuses on developing your skills to analyze, implement and maintain IT applications to support industry-speci c requirements. A common Enterprise Resource Planning (ERP) system (such as mySAP) will be used to enhance this learning. The knowledge acquired will enable you to gain greater competence in applying IT solutions to achieve business process excellence.

CIT2P12 E-Commerce Security & Architecture
This subject will provide you with knowledge related to electronic commerce security. You will learn how e-commerce transactions differ from paper-based commerce, and how to secure e-commerce applications as well as e-commerce transactions. You will study the various aspects of e-commerce security and the technologies for securing e-commerce transactions. The topics for this subject include e-commerce applications threats, cryptography, digital certi cate, and public key infrastructures.

CIT2P13 Enterprise Commerce
This subject aims to provide you with the knowledge, skills and technologies to support the dynamic enterprise commerce activities of businesses. You will be taught the basic concepts of e-business, online marketing, different e-commerce business and application models, technologies and applications, and the components for enabling enterprise e-commerce.

CIT2P16 E-Commerce Solution Development
This subject covers the concepts and implementation of multi-modal e-commerce solutions over multiple delivery channels such as the World Wide Web, mobile devices, PDAs and gaming consoles. You will use an integrated development environment to design, implement and deploy multi-modal applications and standards-based web services over the Internet. You will acquire the knowledge of web-based technologies, XML (Extensible Markup Language), SOAP (Simple Object Access Protocol), an application framework and database access technologies for writing multi modal applications. You will also learn to write applications that make use of web services to integrate businesses within and across enterprises.

CIT2P24 Distributed Systems & Connectivity
This subject gives an overview of the various distributed computing technologies. It introduces basic building blocks of distributed computing and explains their architecture in the context of protocols and network programming using sockets. It also introduces the concept of distributed objects as a means of inter-process communication. Messaging as a means and method of delivering business services will be compared and contrasted with the distributed objects technologies. This subject also provides insights into the challenges of implementing solutions for distributed applications.

CIT2P26 Enterprise Web Application Development
This subject aims to provide you with a general knowledge of the e-commerce technologies and applications in business enterprise. You will learn the fundamentals of enterprise e-commerce, the different e-commerce development and application models and the technologies for enabling enterprise e-commerce.

CIT2P27 Mobile Device Programming
In this subject, you will learn to design and develop software applications for mobile consumer electronic devices such as cell phones and PDAs using emerging mobile computing and telecommunication technologies. You will be introduced to the fundamentals and concepts of developing mobile device applications. Topics include mobile application user interface development, mobile application networking and managing persistence in mobile applications.

CMA1C01 Computing Mathematics 1
This subject equips you with the fundamental mathematical knowledge needed for computing. It covers computer arithmetic, number systems, set theory and Boolean algebra.

CMA1C02 Computing Mathematics 2
This subject introduces you to the fundamental concepts of mathematics needed for the other core computing subjects. Topics include functions and graphs, sequences and series, as well as counting and combinatorics.

CMC2C02 Mobile Database Systems
This subject aims to equip you with skills in designing and implementing relational databases as well as writing applications that access and manipulate data stored in relational databases. Database design techniques will be covered, as well as standard database access application programming interfaces (APIs). In addition, options for achieving persistent data storage that are available on mobile devices will also be examined.

CMC2C08 Wired & Wireless Networking
This subject covers the wired/wireless communication and networking concept. Basic theories of routing and switching, wireless architecture and their applications in a network environment will be discussed.

You will gain the knowledge and skill to design, install and con gure wired and wireless networks.

CMC2C09 Server Side Software Development
The backend servers form an integral part of the mobile/wireless systems, providing services to the heterogeneous mobile clients. This subject introduces you to the concepts, techniques and issues involved in the development and deployment of scalable server-side software.

CMC2E01 Personal Area Wireless Network
This subject focuses on technologies and techniques of developing wireless applications with proximity network wireless connectivity. On completion of this subject, you will be able to develop wireless systems with short-range network connectivity.

CMC2E04 Tourism Informatics
This subject introduces you to how information technologies could be used to enrich the experience of visitors at tourist attractions. You will gain practical experience in employing information technologies in innovative ways to enhance services in the tourism sector.

CMC2E05 IP Telephony
This subject will cover the concepts, design and implementation of Voice-over-Internet-Protocol (VoIP) networks and applications. You will be introduced to topics on IP telephony principles and related protocols, internetworking devices, voice and data networks design and implementation. Convergence of technologies used in creating IP networks that support many different types of traf c like data, audio, video and interactive multimedia will be introduced. Students having taken this elective would have the basic knowledge in Converged Technologies (voice and data) to propose a VoIP solution.

CMC2E06 VOIP System & Application
This subject covers the concept, design and implementation of VoIP over traditional telephony. It begins with an overview of the public telephone network, the facilities such as PBX switching used commonly by enterprise. The subject also covers the trend towards technology convergence where a single network can be used to support different types of traf c: data, audio and video. It also explains how various technologies have made convergence possible and then narrows to focus on VoIP, its functional requirements and the implementation of a VoIP network.

CMC2P11 Mobile System Development
This subject imparts the necessary skills and knowledge required to develop mobile software that exploit the unique advantages and opportunities offered by modern mobile computing devices. You will learn about the challenges as well as capabilities provided by these devices and how to develop connected mobile software for major mobile platforms.

CMC2P12 Mobile System Implementation & Deployment
This subject aims to give you an overview of the delivery of a mobile system and also introduces the theory and practice of mobile systems implementation and deployment. You will be exposed to real-world practices and issues in the implementation and deployment of a mobile system, resulting in the eventual delivery of the system.

CMC2P21 Servers Administration & Security
This subject covers the concept and techniques required to con gure and administer a typical networked server using common operating systems in the industry. Topics include installation of a server system, con guration of devices, disks and le systems with security con guration of Local Area Network (LAN) and Wireless 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.

CMC3P06 Mobile Commerce System & Development
This subject deals with the concepts, techniques, and issues involved in the development of electronic commerce applications and services for the mobile world (generally referred to as mobile e-commerce or m-commerce). You will learn about the fundamental concepts of m-commerce, the different m-commerce systems and business models, the technologies and the components for enabling m-commerce in business.

CMC3P11 Wireless Technology & Services
This subject provides you with a broad overview of the wireless standards, wireless technologies, and wireless Internet services so that you can successfully implement mobile solutions and deploy mobile systems. Social and ethical issues relating to the implementation of wireless technologies and services will also be addressed.

CMC3P22 Mobile & Wireless Security
This subject equips you with the ability to design, plan and deploy security measures for a wireless networked environment. It examines several techniques and systems that are used to provide security and privacy for both mobile (cellular) and wireless networks.

CMC2P23 Internetworking Technologies
This subject covers the Internetworking technologies and protocols for scalable wired and wireless network environments including Wide Area Networks (WANs). Concepts in network scalability, scalable routing protocols for wired wireless WAN technologies will be discussed. You will learn the knowledge and skill to design, install and con gure wired and wireless WAN networks.

CMP3102 Major Project
This subject provides you with the opportunity to apply the software engineering skills and knowledge which you have acquired from the various subjects during the course of your study. 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 dif culties 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 IT careers.

CMP3401 Major Project
This subject involves the integration of knowledge and skills acquired from the various subjects in the Mobile & Wireless Computing curriculum. It fosters a practical understanding of mobile and wireless system development methodology, advanced mobile application programming, mobile software testing, quality assurance, project management, and presentation skills.

CMP3501 Major Project
This subject aims to provide you with an opportunity to apply knowledge and skills acquired in the course to a project. The project will require you to use various multiple media programming environments and paradigms illustrated during the course. The subject will provide an opportunity for you to undergo the entire process of project development using an appropriate methodological framework. You are expected to demonstrate creativity and analytical processes in the project development.

CMP3601 Major Project
The 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.

CMP3701 Major Project
The Major Project involves the integration of knowledge and skills acquired from the various subjects in the Game and Entertainment Technology curriculum. It helps you develop a practical understanding of games development methodology, programming and design techniques, quality assurance, project management and presentation skills. You will work in teams to present and demonstrate your solutions and products.

CMP3801 Major Project
The Major 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 nancial 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 dif culties inherent in project work where teamwork and co-operation are important success factors.

CSI3001 Student Internship Programme
The programme exposes you to an industry environment in which you are expected to undertake various activities. It is an integral part of the curriculum as immersion in a working environment will enhance your understanding of the application of the relevant IT discipline in an organisation, and provide an opportunity for you to grow into a responsible working adult. You will apply and integrate knowledge and skills acquired during the rst two years of study in the work assigned to you. You will be required to demonstrate independence, initiative, creativity and strong conceptual thinking and technical pro ciency.

DIM3335 Sound Design
This subject focuses on the overall creative and narrative expressive aspects of audio-production. You will learn how to create powerful sound effects, atmosphere and underscores for your sound productions.

DNT1301 Visual Literacy
This subject introduces you to design and design-related problems and prepares you with the necessary design and analytical evaluation skills required for the design of print- as well as screen-based media. Through structured exercises and assignments, you systematically develop your personal visual language to communicate a variety of concepts applying design and analytical evaluation skills.

DNT1310 Visual Literacy & Storyboarding

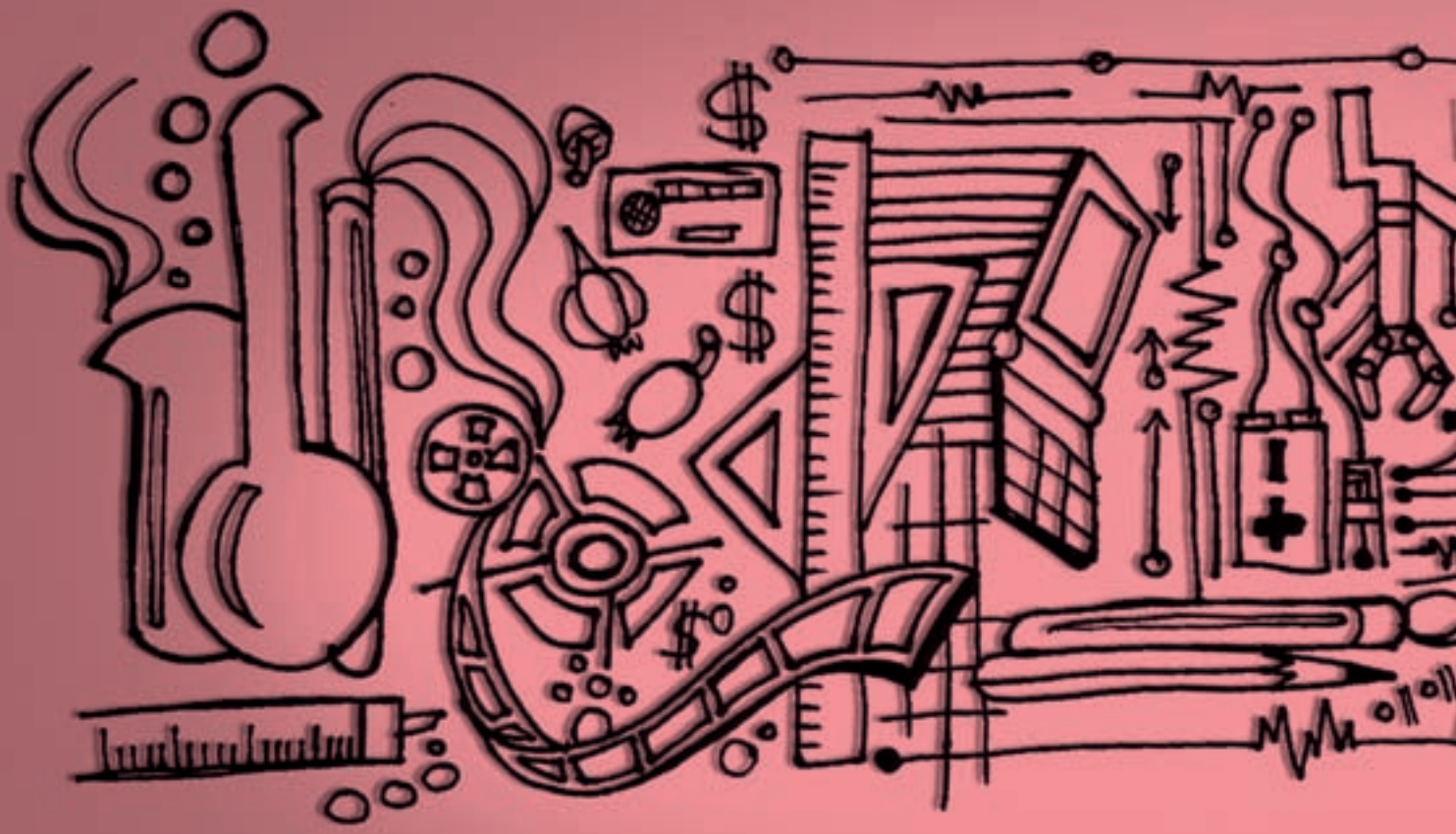
This subject introduces you to design and design-related problems and prepares you to acquire an appreciation of the process behind the creation of storyboards. You will systematically develop your personal visual language to communicate a variety of concepts applying design and analytical evaluation skills. You will also learn creative concept development and the application of basic design elements and principles. Areas covered include colour, shape, texture, patterns, visual hierarchy, layout, typography, and basic visualisation skills. The subject also introduces you to the elements of storytelling, and the use of storyboards to convey story ideas.

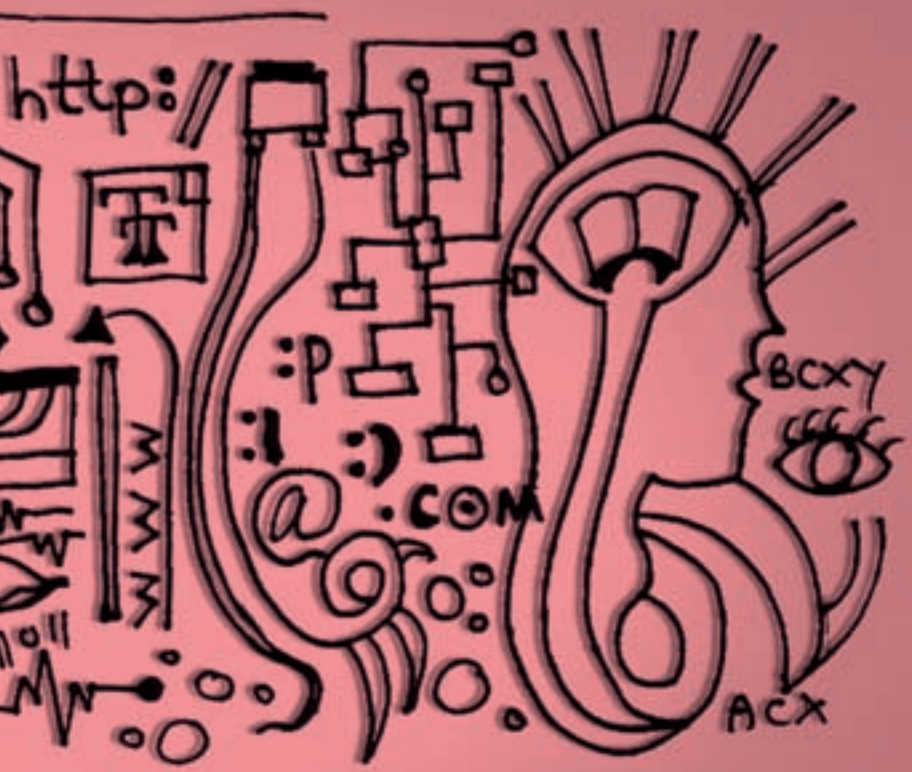
GCD 1001/1002/1003

Applied Principles for Effective Living

Applied Principles for Effective Living is TP's Core programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extropersonal Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (ie, attitudes, skills, knowledge) towards the Principles for Effective Living, hence laying the vital foundation for their life-long success. The principles introduced in this programme are largely derived from applied psychological studies.

Cross-Disciplinary Subjects





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The tentative list of Cross-Disciplinary Subjects offered by the academic schools is shown below. Do note that the final list of subjects to be offered in each semester is subject to change and that not all subjects will be offered in every semester.

Temasek Applied Science School

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ABM1X01	Human Health & Diseases	1	3
ABT1X01	Environmental Science	1	3
ABT1X02	Life Sciences & You	1	3
ACE1X01	Industrial Safety	1	3
ACE1X02	Water Technology	1	3
ACH1X01	Chemistry in Life	1	3
AFS1X01	Food Hygiene	1	3
AMB1X01	Discovering the Human Body	1	3
AMB1X02	Microorganisms & You	1	3
ANT1X01	Basics of Nutrition	1	3
ANT1X02	Science in Cuisine	1	3
APH1X01	Introduction to OTC Medication	1	3

Subject Synopses

ABM1X01 Human Health & Diseases
This subject provides you with fundamental and up-to-date information on human health and diseases. It covers both the common non-infectious and infectious diseases as well as their diagnoses, prevention and treatment.

ABT1X01 Environmental Science
This subject examines the effects of human activities on the environment using science to examine these effects. It is inter-disciplinary in nature and encompasses areas of science, physical geography and ecology along with aspects of the social sciences.

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.

ACE1X01 Industrial Safety
This subject is designed to create awareness of the importance of industrial safety. Topics will include machinery safety, hazards of re and explosion, material handling, personal protection equipment and the legislation concerning safety.

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.

ACH1X01 Chemistry in Life
This subject brings to you an awareness of the impact of chemistry, ranging from colours and plastics to drugs that are encountered in our everyday life.

AFS1X01 Food Hygiene
This subject introduces the importance of food hygiene and practices that prevent food hazards. It covers aspects of safe food handling during preparation and storage.

AMB1X01 Discovering the Human Body
This subject illustrates the basic understanding of human anatomy and physiology. It explains how physiological processes lead to the normal functioning of the human body.

AMB1X02 Microorganisms & You
This subject offers you an opportunity to discover the world of microorganisms. It unfolds the relationship between man and microorganisms, ie, bacteria, viruses, protozoa, fungi and algae.

ANT1X01 Basics of Nutrition
This subject introduces the key nutrients found in food and their role in relation to health. Nutritive values of various types of food will also be discussed.

ANT1X02 Science in Cuisine
This subject emphasises the principles of science in food preparation. It covers the properties of key components in food and the changes it undergoes during food preparation.

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.

Temasek Business School

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
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
BLO1003	Introduction to Logistics & Supply Chain Management	1	3
BLO1005	Basic Calculus for Business	1	3
BMK1002	Service Quality	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 nancial 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 nancial management, various sources and application of funds of a typical business and some basic techniques to assist in long-term nancial 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 selection, people development, performance appraisal, rewards and bene ts, change management, team management to discipline and grievance handling. You will also have an appreciation of the current trends in the eld 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, staf ng and basic nancial projections.

BBT1004 Basics of E-Business
This subject provides you with 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 a better understanding of the media scene. You will learn about mass communication concepts, theories, history, background 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
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.

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 rms. 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 you with 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 eldwork 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 you with 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 dynamic 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 you with 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, civil and criminal procedures, family law, the law of tort, and the law of contract.

BLO1003 Introduction to Logistics & Supply Chain Management
This subject gives you 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. This will help to develop your problem-solving skills and enable you to communicate effectively in real industry situations.

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. It will introduce you to the basic concepts of algebra and functions, differentiation and integration. Techniques of problem solving in business and economics applications will also be covered.

BMK1002 Service Quality
This subject equips you with the knowledge, skills and mindset of productivity and service quality. It provides an integrated approach for you to learn the various aspects of customer service. This subject places emphasis on practical applications of concepts through role-play, case studies and experiential games. You will be given the opportunity to apply productivity and service quality concepts in a group project.

Temasek Design School

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DAD1900	20th Century Fashion	1	3
DIA1902	Human Environment Planning	1	3
DPD1901	Freehand Drawing	1	3
DPS1903	Culture & Expression	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. In uences from international fashion designers in the fashion industry will also be introduced.

DIA1902 Human Environment Planning
This subject deals with issues affecting the human environment. This includes the fundamentals in planning and utilisation of an environment to t human characteristics and capabilities.

DPD1901 Freehand Drawing
This module 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 be generally based on freehand drawing, placing special demands on seeing / perception (eyeballing), scale, composition and perspective.

DPS1903 Culture & Expression
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.

Temasek Engineering School

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

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. Applying the knowledge of mathematics and the sciences, this subject emphasises the use of creativity to solve practical real-life problems.

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 setting up an enterprise. The business tools of marketing, nance and human resource management are explained. You may apply your knowledge in the creation of a business plan based on an original business idea.

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. Software will be used in the subject to enhance your learning.

Temasek Humanities & Social Sciences School

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GEM1001	Plugging into the China Connections – History & Translation	1	3
GEM1002	Plugging into the China Connections – Project	1	3
GEM1003	Plugging into the China Connections – Attachment in China	1	3
GEN1001	Psychology of Creativity	1	3
GEN1002	Global Citizenship	1	3
GEN1003	World Issues	1	3
GEN1004	Music: Expressions & Applications	1	3
GEN1005	Perspectives on China – An Introduction	1	3
GEN1006	Introduction to Language & Culture (Italian)	1	3
GEN1007	Understanding Art	1	3
GEN1008	Understanding Theatre	1	3
GEN1901	Entrepreneurship Project: Interdisciplinary Approach	1	3
GEN1902	Innovation Principles & Practice	1	3
GFL1001	Introduction to Language & Culture (French)	1	3
GFL1003	Introduction to Language & Culture (Japanese)	1	3
GLA1002	Creative Writing	1	3
GLA1004	Understanding Expressions of Culture	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
GSS1005	Leadership & Character	1	3

Subject Synopses

GEM1001 Plugging into the China Connections – History & Translation

This subject equips you with a foundation in China's history and culture as a precursor to developing basic English-Chinese bilingual translation and interpreting skills to function effectively in the business and nancial environment.

GEM1002 Plugging into the China Connections – Project

This subject provides you with the hands-on practice as a follow up to Plugging into the China Connections - History & Translation. You will apply the knowledge and skills you have acquired for the production of speci c collaterals or deliverables to meet project requirements.

GEM1003 Plugging into the China Connections – 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.

GEN1001 Psychology of Creativity
This subject explores and reviews approaches to creativity. It covers the psychological components of the creative process and the application of creativity in fields such as business, science, technology, arts, humanities and social sciences. The subject will culminate in a major "creativity project" that will provide opportunities for you to apply the techniques learnt throughout the subject.

GEN1002 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.

GEN1003 World Issues
Want to know the "what, why, where and how" of significant world events and issues? This subject helps you to stay attuned to the causes, effects and challenges of what is happening around you in the world.

GEN1004 Music: Expressions & Applications
This subject provides an insight into music and its applications in various fields. The first part of the subject introduces you to the basic elements of music (eg, pitch, rhythm, melody, harmony and instruments) and musical styles from different time periods ranging from the Middle Ages to modern day. In the second part of the subject, you will explore the role and functions of music in relation to various areas such as film, theatre, commerce and technology.

GEN1005 Perspectives on China – An Introduction
This subject aims to get you ready for working and living in China when you join the work force after graduation. It gives you a basic understanding of the different facets of China: her vastness, major classical legacies, intricate political system, giant economy system, strategic foreign relations, and colourful cultures. The subject helps you to understand and appreciate the cultural makeup and mindset of the Chinese community.

GEN1006 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 both in Italy and abroad.

GEN1007 Understanding Art
This subject provides you with the knowledge and skills to understand the visual arts and its relevance to society and culture. In lectures and tutorials, the subject 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. Important periods of art history will also be discussed. In addition, you will be introduced to art experiences as you create your own works of art and learn to express yourself via artistic forms.

GEN1008 Understanding Theatre
This subject provides you with 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.

GEN1901 Entrepreneurship Project: Interdisciplinary Approach
This subject engages you from different disciplines in a project that has entrepreneurship perspectives and objectives. In working through the project, you will develop entrepreneurship process skills, and ultimately create a potential/ proposed business entity.

GEN1902 Innovation Principles & Practice
The subject aims to equip you with the process skills for purposeful, systematic innovation through a comprehensive approach so as to prepare you for the fast-paced changing entrepreneurial environment. Starting with the aim to improve a product design, you will be brought through the process of user observations/interviews, brainstorming, product refinement/redesign and gathering feedback for validation of your designs and future enhancements. Throughout the process, you will be required to develop process maps, document and capture your learning and develop a framework for innovation based on what you have gone through.

GFL1001 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, at the train station, etc). The subject also explores the key aspects of the culture of the French community.

GFL1003 Introduction to Language & Culture (Japanese)
This subject covers basic Japanese oral communication skills in situations like greetings, shopping and describing daily life. The subject also highlights key aspects of the Japanese culture such as practices in different seasons and current social trends.

GLA1002 Creative Writing
This subject introduces you to the techniques in the creative writing process that enables you to stretch beyond your basic writing ability. It also covers the various types of literary works as well as their characteristics and engages you in the entire writing process from creative conceptualisation to publishing.

GLA1004 Understanding Expressions of Culture
This subject highlights the value of cultural diversity. It introduces you to the different perspectives on culture. It also covers the role of culture in effective cross-cultural communication. You will get opportunities to immerse yourself in cultural activities, explore and appreciate the richness of culture, and discuss cultural issues.

GLA1005 Fundamentals of Public Speaking
This subject aims to help you become con dent 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.

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 you to the ve 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 you to 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, mass media, culture, social interaction, ethnic relations, globalisation, cyber-culture and gender issues.

GSS1005 Leadership & Character
This subject covers the various aspects and principles of leadership. You will examine the lives and character traits of well-known leaders. This subject will be useful for those who want to understand what makes a good and moral leader and aspire to be such a leader.

Temasek Informatics & IT School

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD1X01	Introduction to Cyber Security	1	3
CCD1X02	VoIP Made Simple	1	3
CGE1X01	Introduction to Digital Game Development	1	3
CIC1X02	Web Publishing	1	3
CIC1X03	Introduction to Human Computer Interaction	1	3
CID1X01	Effective E-Learning Development	1	3
CIM1X01	Using the Internet as a Research Tool	1	3
CIM1X04	Web Database Appreciation	1	3
CIT1X01	Introduction to Computer Science	1	3
CIT1X03	Programming in VBA (Visual Basic for Applications)	1	3
CIT1X04	Windows Application Programming in C#	1	3
CMA1X01	Calculus & Analytic Geometry	1	3
CMA1X02	Basic Statistics	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

CCD1X01 Introduction to Cyber Security
This subject introduces you to the basic elements on the topic of cyber security, and provides insights to common systems vulnerabilities and strategies to mitigate the security risks in existing systems. Basic information on security law and computer ethics will be covered.

CCD1X02 VoIP Made Simple
The use of Internet Protocol (IP) Telephony services like MSN Messenger, Skype, Google Talk and AOL Instant Messenger is growing daily. They are used by both individuals and companies as they save costs. Through this subject you will understand how IP Telephony is used and its various functions such as chat services, video conferencing, video surveillance; home and of ce automation and many others. This subject provides an introduction to IP Telephony and Voice-over-IP. You will learn about the bene ts and challenges of using IP Telephony as well as the applications and services that it offers. On completing this subject, you would be able to think about new ways of using IP Telephony.

CGE1X01 Introduction to Digital Game Development
This subject aims to provide 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.

CIC1X02 Web Publishing
This subject introduces you to multimedia development for the World Wide Web. Topics include web media, such as graphics, audio, animation, and the use of a web development methodology.

CIC1X03 Introduction to Human Computer Interaction
This subject introduces you to the fundamentals of human computer

interaction principles and usability evaluation techniques. Particular emphasis will be paid to applied and quality control aspects of the subject. There will be practical experience of usability evaluation processes that can be applied. The topics covered include the history of human factors in technology, human computer interaction principles, interface design guidelines and two usability evaluation techniques.

CID1X01 Effective E-Learning Development

This subject aims to develop in you an awareness of the e-learning development work ow, which includes the phases of planning, development, implementation and evaluation. You will use the knowledge acquired to apply e-learning principles to the design and development of an e-learning package.

CIM1X01 Using the Internet as a Research Tool

With the phenomenal information explosion brought about by Internet technologies, the ability to critically evaluate information resources on the Internet becomes an important skill. In this module, there will be practical experience in evaluating actual Internet resources using identi ed criteria for research purposes. The topics covered include categories of Internet resources, Internet search facilities, evaluation criteria for different Internet resources, citation, copyrights and Internet communication etiquette.

CIM1X04 Web Database Appreciation

This subject introduces you to the importance of dynamic web database applications. You will learn how to build a simple database within web pages. Through the use of web pages, you will connect to a database, as well as select and display data on the web pages. You will also learn how to manage the data from a database via the web pages.

CIT1X01 Introduction to Computer Science

This subject introduces you to one of the youngest and most exciting of scienti c disciplines – computer science. It provides you with a broad overview of various essential topics including computer software and hardware, programming languages, operating systems, software development processes, computing applications and societal issues.

CIT1X03 Programming in VBA (Visual Basic for Applications)

This subject teaches the basics of programming using a commonly available platform such as Microsoft Of ce Excel. You will learn to write macros in VISUAL Basic® for Applications (VBA) language to automate routine tasks and build application solutions in Microsoft Excel. Programming techniques to produce graphical user interface (GUI) components and data processing logic will be taught. You will build usable programs on Excel to generate reports, display charts and statistics or create simple interactive games. This subject assumes that you have some basic experience in Microsoft Excel.

CIT1X04 Windows Application Programming in C#

This subject covers the concepts and implementation of Windows application. You will be introduced to an integrated development tool to build graphical user interface applications in a multi-tier environment. The subject provides opportunities for you to expand your object-oriented programming skills. The subject assumes that you have some basic understanding of program design and programming techniques to develop applications.

CMA1X01 Calculus & Analytic Geometry

This module provides you with a rm foundation in mathematics so as to better prepare you for higher education. Topics include functions and graphs, trigonometry, differentiation and integration.

CMA1X02 Basic Statistics

This module provides you with a rm foundation in mathematics so as to better prepare you for higher education. Topics covered include basic statistics, general ideas of sampling methods, central limit theorem, con dence intervals and hypotheses testing.

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 their stories.

CMA1X07 Styles & Issues in Writing for the New Media

This subject aims to equip 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 their texts. In addition, you will explore various social issues and responsibilities related to communicating through the new media.

CMA1X08 Literacies for the Digital Age

This subject aims to equip you with an understanding of what constitutes literacy in the digital age. It will provide you with the essential critical skills to analyse and evaluate how interaction and meaning-making is achieved, and in particular, it will examine the literacies expected when communicating on the Internet or through channels such as instant messaging, blogs, wikis, virtual communities and such. You will also have opportunities to create or co-construct meaning through the use of new media

Admission & Requirements

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General Information on Application

- All applications are to be submitted electronically or using the prescribed application form.
- Supporting documents are to be sent by post, by the stipulated closing date, after the application has been submitted.
- Applications without the supporting documents will be deemed incomplete and will not be processed.
- Duplicate/Multiple applications submitted under the same admission exercise, in any particular intake, will be rendered invalid and rejected.
- You are personally responsible for providing accurate and complete information in your 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.

Application Procedures

Depending on the quali cation you have obtained, you may apply through the respective admissions exercises shown below:

Types of Admissions Exercises	Direct Polytechnic Admissions Exercise (DPA)	Joint Admissions Exercise (JAE) ^	Joint Polytechnic Special Admissions Exercise (JPSAE) – Special Talents (Academic & CCA Special Talents) %^	Joint Polytechnic Admissions Exercise (JPAE)	Direct Admissions Exercise (DAE – Local Quali cations)	Direct Admissions Exercise (DAE – Foreign Quali cations)
Who can apply	Singaporeans (SC) or Singapore Permanent Residents (SPR) who have registered to sit for the Singapore-Cambridge GCE O level examinations in the year of the DPA admission exercise.	Singaporeans (SC) or Singapore Permanent Residents (SPR) with Singapore-Cambridge GCE O level results of 2007 or earlier years.	Singaporeans (SC) or Singapore Permanent Residents (SPR), foreign students (from a government, government-aided or independent school) with Singapore-Cambridge GCE O level results of 2007.	Holders of Higher Nitec/ ITC/ CBS or Nitec/ NTC-2 quali cation who have sat for either the Singapore-Cambridge GCE N or O level. Holders of SPM/ STPM results.	Ex- or current polytechnic students seeking re-admission to the polytechnic. Holders of local quali cations who: - Missed the registration period of JAE, JPAE and JPSAE or - Missed the English Language requirement but have obtained distinctions both in Maths and relevant subjects	Holders of foreign quali cations SPM & STPM holders should apply under JPAE for April intake.

Who can apply	Foreign students enrolled in government, government-aided and Independent Schools during the year of the application, and who have registered to sit for the Singapore-Cambridge GCE O level examinations in the year of the DPA admission exercise.	Foreign students from a government, government-aided or Independent School (excluding private schools) with Singapore-Cambridge GCE O level results of 2007.	Candidates should also possess one of the following: - Demonstrate strong passion or aptitude through work attachments - Sustained involvement in course-related projects - Outstanding performance in competitions like the Maths/Science Olympiad - Outstanding talents/ achievements in leadership, community service, entrepreneurship, sports, artistic and creative areas			
How to apply	Apply online at www.polytechnic.edu.sg/dpa	Apply online at www.moe.gov.sg/esp/schadm/jae	Apply online at www.polytechnic.edu.sg/jpsae	Apply online at www.polytechnic.edu.sg/jpae	Apply online at the TP website www.tp.edu.sg/home/admissions/adm_apply.htm	Application form is available for downloading at www.tp.edu.sg/home/admissions/is.htm

When to apply	Around Jul 08 Refer to the MOE Website and local press release nearer the date	Five calendar days starting from the release of the Singapore-Cambridge GCE O level examination results. Refer to the MOE Website and local press release which is expected to be some time in late Jan 2008	Same as JAE Refer to the Joint Polytechnic advertisement which is expected to be some time in late Jan 2008	ITE quali cation holders Mid-Feb 2008 SPM/STPM holders Early Mar 2008 Refer to the Joint Polytechnic advertisement which is expected to be some time in late Jan 2008	Application Period: April 2008 Intake Starting on the same day as JAE. Application closes in end Feb/early Mar 2008. October 2008 Intake 1 to 15 August 2008	Application Period: April 2008 Intake 1 Sep 2007 to 15 Oct 2007 October 2008 Intake 1 Mar 2008 to 15 Apr 2008
					Refer to www.tp.edu.sg for the latest information	
Selection based on	- Applicants are selected based on a basket of criteria to assess their interests, talents, and aptitude for the chosen course. - Shortlisted candidates may be required to attend an interview and/ or sit for a test.	Academic results	Academic and CCA Special Talents Short-listed applicants may be invited to attend interviews, aptitude tests and/or auditions to ascertain the applicants' motivation, creativity, knowledge, aptitude and potential before nal selection.	Academic results	Academic results Short-listed applicants may be required to attend interviews and/or aptitude tests before nal selection.	
Entry Requirements	Refer to the respective sections on the Minimum Course Entry Requirements					

Notification of Posting Results	Applicants may check their posting results at www.polytechnic.edu.sg/dpa.	The outcome of the application will be released by MOE about 3 weeks after the JAE registration period. Refer to the Joint Admissions Exercise information booklet or the MOE website for latest information	Same as JAE Applicants may check their posting results at www.polytechnic.edu.sg/jpsae.	Applicants may check their posting results at www.polytechnic.edu.sg/jpae. Expected release of posting results: Early Mar 2008 (for ITE qualification holders) Late Mar 2008 (for SPM/STPM holders)	Applicants will be notified of the outcome of their applications by post. Expected release of posting results: About two weeks before course commencement Applicants may check their application status online at: www.tp.edu.sg/home/admissions/adm_status.htm. Click on "Course Application Status Enquiry & Enrolment System".	Applicants will be notified of the outcome of their applications by post. Expected release of posting results: About one to two months before course commencement Applicants may check their application status online at: www.tp.edu.sg/home/admissions/adm_status.htm. Click on "Course Application Status Enquiry & Enrolment System".
Application Enquiries	Contact Polytechnic of your first choice	Contact MOE Customer Service Centre at +65 6872 2220	Contact Polytechnic of your first choice	Contact Polytechnic of your first choice	Contact Admissions at email: admissions@tp.edu.sg Tel : +65 6787 8000 Fax: +65 6783 3031	Contact International Students Office at email: isohotline@tp.edu.sg Tel: +65 6780 5970 Fax: +65 6789 4409

Note: Dates are subject to changes. Please refer to TP website for the latest updates.

% Applicants applying through JPSAE are also advised to submit their application through JAE.
^ Students admitted via the DPA or the DSA-JC Exercise will not be eligible to apply under JAE and JPSAE.

Applicants interested in the Diploma in Consumer Science & Technology (CST) course are to apply directly under the Home Economics Teacher Training Scheme at the Ministry of Education (MOE) (1, Buona Vista Drive, Singapore 138675). More information on application period and procedure can be found at www.moe.gov.sg/teach/Apply.htm. For enquiries, please contact the MOE Customer Service Centre at 6872 2220 or email to contact.MOE@moe.edu.sg.

Integrated Programme (IP) students who have completed the equivalent of Secondary 4 may apply for admission. Eligibility is similar to GCE O level. They will be assessed based on their final year school results, interview, and/or test. For April 2008 intake, the application period is from 1 Sep to 15 Oct 2007. The application form is available for downloading at www.tp.edu.sg/home/admissions/is.htm.

Eligibility & Entry Requirements

Eligibility

To be considered for admission to a course, you should:
- Meet the minimum entry requirements for the course
- Be certi ed physically and mentally t to pursue the course. Please refer to the section on *Medical Fitness* 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/A Level Qualification Holders

Details on the Minimum Entry Requirements of the respective courses can be found under the section on course information or at MOE website at www.gov.sg/esp/schadm/jae. Applicants are advised to read the section on the minimum entry requirements in conjunction with the section on Posting Procedure and Annex A – Posting of Applicants & Aggregate Type in the JAE information booklet.

Applicants with Singapore-Cambridge GCE O level quali cation will be ranked according to their aggregate of English Language (EL), 2 relevant subjects (R2) and 2 other best subjects (B2), in short, ELR2B2, based on their GCE O level results. They may combine their GCE O level results of up to two sittings when seeking admission to TP. This also applies to Singapore-Cambridge GCE A level holders.

Minimum Entry Requirements for ITE Certificate Holders

ITE quali cation holders with the relevant certi cate (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 certi cates for application to the courses.

Applicants with ITE certi cate will be ranked according to their academic Grade Point Average (GPA).

a) Higher National ITE Certificate (Higher NITEC)

Course	Relevant Higher NITEC*	Entry Level	
		GPA≥3.5	GPA< 3.5
APPLIED SCIENCE			
Biomedical Science @ Biotechnology	a) IT58 Biochemical Technology	1	-
BUSINESS			
Accounting & Finance ◊	a) BS85 Business Studies (Accounting)/ Accounting	1	1
	b) BS86 Business Studies (Secretarial/ Administration)	1	1
	c) BS88 Business Studies (E-Commerce)/ Business-Information Technology	1	1
	d) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	1
	e) BS89 Business Studies (Sports Management)	1	1
	a) BS85 Business Studies (Accounting)/ Accounting	1	1
Business ◊ ♦ Logistics & Operations Management ◊ ♦ Marketing ◊ ♦ Retail Management ◊	b) BS86 Business Studies (Secretarial/ Administration)	1	1
	c) BS88 Business Studies (E-Commerce)/ Business-Information Technology	1	1
	d) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	1

Course	Relevant Higher NITEC*		Entry Level	
			GPA≥3.5	GPA< 3.5
Business Information Technology ◊ %	a) BS85	Business Studies (Accounting)/ Accounting	1	1
	b) BS86	Business Studies (Secretarial/ Administration)	1	1
	c) BS88	Business Studies (E-Commerce)/ Business-Information Technology	1	1
	d) BS87	Business Studies (Logistics)/ Integrated Logistics Management	1	1
	e) IT56	Information Technology	1	1
Culinary & Catering Management ◊ Hospitality & Tourism Management ◊ Leisure & Resort Management ◊	a) BS85	Business Studies (Accounting)/ Accounting	1	1
	b) BS86	Business Studies (Secretarial/ Administration)	1	1
Law & Management # ◊	a) BS85	Business Studies (Accounting)/ Accounting	1	1
	b) BS86	Business Studies (Secretarial/ Administration)	1	1
	c) BS87	Business Studies (Logistics)/ Integrated Logistics Management	1	1
DESIGN				
Interactive Media Design ◊ ^	a) IT56	Information Technology	1	1
Product & Industrial Design ^ ◊ ^^	a) IT21	Electro-Mechanical Engineering	1	1
	b) IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	1
	c) IT52	Mechanical Engineering	1	1
	d) IT22	Mechatronics Engineering	1	1
Moving Images ◊ ^	a) IT56	Information Technology	1	1

Course	Relevant Higher NITEC*		Entry Level	
			GPA≥3.5	GPA< 3.5
ENGINEERING				
Aviation Management & Services © Business Process & Systems Engineering © Info-Communications © Integrated Facility Design & Management © Intelligent Building Technology ©	a) IT31	Electrical Engineering	1	1
	b) IT41	Electronics Engineering/ Industrial Electronics Engineering	1	1
	c) IT21	Electro-Mechanical Engineering	1	1
	d) IT56	Information Technology	1	1
	e) IT55	Manufacturing Engineering	1	1
	f) IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	1
	g) IT52	Mechanical Engineering	1	1
	h) IT22	Mechatronics Engineering	1	1
	i) IT57	Wireless Technology	1	1
Electronics © 🏢 Computer Engineering © 🏢 Media & Communication Technology ↩ © 🏢 Microelectronics © 🏢	a) IT31	Electrical Engineering	2**	1
	b) IT41	Electronics Engineering/ Industrial Electronics Engineering	2**	1
	c) IT21	Electro-Mechanical Engineering	1	1
	d) IT56	Information Technology	1	1
	e) IT55	Manufacturing Engineering	1	1
	f) IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	1
	g) IT52	Mechanical Engineering	1	1
	h) IT22	Mechatronics Engineering	1	1
	i) IT57	Wireless Technology	1	1

Course	Relevant Higher NITEC*		Entry Level	
			GPA≥3.5	GPA< 3.5
Mechatronics ^^ ©	a) IT31	Electrical Engineering	2**	1
	b) IT41	Electronics Engineering/ Industrial Electronics Engineering	2**	1
	c) IT21	Electro-Mechanical Engineering	2**	1
	d) IT56	Information Technology	1	1
	e) IT55	Manufacturing Engineering	1	1
	f) IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	1
	g) IT52	Mechanical Engineering	2**	1
	h) IT22	Mechatronics Engineering	2**	1
	i) IT57	Wireless Technology	1	1
INFORMATICS & IT				
Cyber & Digital Security ◊ %	a) IT58	Biochemical Technology	1	1
Financial Business Informatics ◊ %	b) BS85	Business Studies (Accounting)/ Accounting	1	1
Game & Entertainment Technology ◊ ^	c) BS86	Business Studies (Secretarial/ Administration)	1	1
Information Technology ◊ %	d) BS87	Business Studies (Logistics)/ Integrated Logistics Management	1	1
Interactive Media Informatics ◊ ^	e) BS89	Business Studies (Sports Management)	1	1
Mobile & Wireless Computing ◊ %	f) BS88	Business Studies (E-Commerce)/ Business-Information Technology	1	1
	g) BS84	Business Studies (Event Management)	1	1
	h) IT31	Electrical Engineering	1	1
	i) IT41	Electronics Engineering/ Industrial Electronics Engineering	1	1

Course	Relevant Higher NITEC*		Entry Level	
			GPA≥3.5	GPA< 3.5
	j) IT21	Electro-Mechanical Engineering	1	1
	k) BS83	Hospitality Operations	1	1
	l) IT56	Information Technology	1	1
	m) IT55	Manufacturing Engineering	1	1
	n) IT51	Mechanical & Electrical EngineeringDesign/ Mechanical & Electrical Drafting & Design	1	1
	o) IT52	Mechanical Engineering	1	1
	p) IT22	Mechatronics Engineering	1	1
	q) IT57	Wireless Technology	1	1

Note:

* ITC or CBS COM certi cate holders may apply.

\# Applicants to the Law & Management course must also possess at least a B4 grade in English Language (EL1) in the GCE O level/SPM examinations.

% Applicants with complete/ full Colour Appreciation De ciency are not eligible to apply.

^ Applicants with Colour Appreciation De ciency (partial or complete) are not eligible to apply.

@ Applicants with Colour Appreciation De ciency (partial or complete) are not eligible to opt for the Biomedical Technology option.

^^ Applicants should ensure that they do not suffer from medical conditions such as epilepsy or hearing impairment.

◊ Applicants should preferably possess a minimum GPA of 3.0 points.

© Applicants should preferably possess a minimum GPA of 2.0 points.

** Applicants who are granted entry directly to Level 2 stage of study of the respective diploma course are deemed to have met the prescribed requirements and are exempted from subjects offered at Level 1 stage of study in accordance with the recommended pathway of the course. Bridging courses in PCB Design, Java and Digital Fundamental may be conducted, if necessary.

♦ Diploma in Business, Diploma in Logistics & Operations Management and Diploma in Marketing are offered as a common course in the rst year.

Diploma in Electronics, Diploma in Media & Communication Technology, Diploma in Computer Engineering and Diploma in Microelectronics are offered as a common course in the rst year.

Formerly known as Diploma in Telecommunications.

Formerly known as Diploma in Internet & Multimedia Development.

b) National ITE Certificate (NITEC)

Course	Relevant NITEC*	Entry Level	Min GPA
APPLIED SCIENCE			
Chemical Engineering	a) NT39 Chemical Processing Technology (Petrochemicals/ Pharmaceuticals)	1	3.5
DESIGN			
Environment Design ^	a) NT21 Building Drafting (Architectural)	1	3.5
Interactive Media Design ^	a) NT44 Digital Media Design/ Digital Media Design (Interactive Media)	1	3.5
	b) NT41 Multimedia Technology	1	3.5
Interior Architecture & Design ^	a) NT21 Building Drafting (Architectural)	1	3.5
Moving Images ^	a) NT52 Digital Animation	1	3.5
	b) NT56 Digital Audio & Video Production	1	3.5
	c) NT44 Digital Media Design/ Digital Media Design (Interactive Media)	1	3.5
	d) NT54 Digital Media Design (Digital Video Effects)	1	3.5
	e) NT41 Multimedia Technology	1	3.5
Product & Industrial Design ^ ^^	a) NT30 Maintenance Fitting/ Mechanical Servicing/ Mechanical Technology	1	3.5
	b) NT46 Product Design	1	3.5
Retail & Hospitality Design ^	a) NT21 Building Drafting (Architectural)	1	3.5
Visual Communication ^	a) NT52 Digital Animation	1	3.5
	b) NT56 Digital Audio & Video Production	1	3.5
	c) NT44 Digital Media Design/ Digital Media Design (Interactive Media)	1	3.5
	d) NT54 Digital Media Design (Digital Video Effects)	1	3.5

Course	Relevant NITEC*		Entry Level	Min GPA
ENGINEERING				
Aviation Management & Services	a) NT28	Air-conditioning & Refrigeration Technology	1	3.5
Business Process & Systems Engineering	b) NT29	Automotive Technology (Heavy Vehicles)	1	3.5
Computer Engineering	c) NT31	Automotive Technology (Light Vehicles)	1	3.5
Electronics	d) NT21	Building Drafting (Architectural)	1	3.5
Info-Communications	e) NT38	Building Services Technology	1	3.5
Integrated Facility Design & Management	f) NT23	Civil & Structure Drafting/ Building Drafting	1	3.5
Intelligent Building Technology	g) NT47	Communications Technology	1	3.5
Mechatronics ^^	h) NT26	Electrical Fitting & Installation/ Electrical Installation & Servicing/ Electrical/ Electrical Technology (Installation & Servicing)	1	3.5
Media & Communication Technology	i) NT27	Electrical Power & Machines/ Electrical Technology (Power & Machines)	1	3.5
Microelectronics	j) NT25	Electro-Mechanical Servicing/ Mechatronics	1	3.5
	k) NT24	Electronics Servicing/ Electronics (Computer Technology)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5
	l) NT40	Info-Communications Technology	1	3.5
	m) NT30	Maintenance Fitting/ Mechanical Servicing/ Mechanical Technology	1	3.5

Course	Relevant NITEC*		Entry Level	Min GPA
	n) NT42	Marine Mechanics	1	3.5
	o) NT41	Multimedia Technology	1	3.5
	p) NT32	Precision Machining/ Precision Engineering (Machining)	1	3.5
	q) NT48	Precision Engineering (Aerospace)	1	3.5
	r) NT37	Precision Engineering (Injection Mould)/ Precision Engineering (Press Tool)/ Precision Engineering (Tool & Mould)	1	3.5
	s) NT46	Product Design	1	3.5
INFORMATICS & IT				
Cyber & Digital Security % Game & Entertainment Technology ^ Information Technology % Interactive Media Informatics ^ Mobile & Wireless Computing %	a) NT47	Communications Technology	1	3.5
	b) NT52	Digital Animation	1	3.5
	c) NT56	Digital Audio and Video Production	1	3.5
	d) NT44	Digital Media Design/ Digital Media Design (Interactive Media)	1	3.5
	e) NT54	Digital Media Design (Digital Video Effects)	1	3.5
	f) NT26	Electrical Fitting & Installation/ Electrical Installation & Servicing/ Electrical/ Electrical Technology (Installation & Servicing)	1	3.5
	g) NT27	Electrical Power & Machines/ Electrical Technology (Power & Machines)	1	3.5
	h) NT25	Electro-Mechanical Servicing/ Mechatronics	1	3.5

Course	Relevant NITEC*		Entry Level	Min GPA
	i) NT24	Electronics Servicing/ Electronics (Computer Technology)/ Electronics (Computer & Networking)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5
	j) NT40	Info-Communications Technology	1	3.5
	k) NT41	Multimedia Technology	1	3.5
	l) NT32	Precision Machining/ Precision Engineering (Machining)	1	3.5
	m) NT46	Product Design	1	3.5
	n) NT57	Security Technology	1	3.5

Note:

* NTC Grade 2-COM holders may apply. Applicants must also have sat for the Singapore-Cambridge GCE N or O level examination in addition to being awarded with the NITEC/NTC Grade 2-COM quali cation.

% Applicants with complete/full Colour Appreciation De ciency are not eligible to apply.

^ Applicants with Colour Appreciation De ciency (partial or complete) are not eligible to apply.

^^ Applicants should ensure that they do not suffer from medical conditions such as epilepsy or hearing impairment.

Diploma in Electronics, Diploma in Media & Communication Technology, Diploma in Computer Engineering and Diploma in Microelectronics are offered as a common course in the rst year.

Formerly known as Diploma in Telecommunications.

Formerly known as Diploma in Internet & Multimedia Development.

Minimum Entry Requirements for Other Qualification Holders

Please refer to the section on “Information for International Students” for details.

Medical Fitness

In the interest of the general safety of our staff and students, applicants with medical condition(s) (e.g. epilepsy, physical disability and/or other disabilities such as hearing impaired and/or speech impairment) are advised to consider their choice of study carefully. Such applicants may be granted admission on a case-by-case basis and/or may be transferred to another course at the discretion of the Polytechnic.

Applicants offered admission are required to undergo a pre-enrolment medical examination. Applicants must be certi ed mentally and physically t by a Singapore-registered medical practitioner to pursue their course of study at the point of enrolment and before course commencement. Those who are unable to complete or ful ll the requirements of the pre-enrolment medical examination are deemed as un t to pursue the course of study. Such applicants, if enrolled, will be advised to withdraw.

Applicants who are suffering from full/ complete Colour Appreciation De ciency are not eligible to apply for the following courses:

- Apparel Design & Merchandising*
- Biomedical Science (Biomedical Technology option only)*
- Biomedical Informatics & Engineering*
- Business Information Technology
- Cyber & Digital Security
- Environment Design*
- Financial Business Informatics
- Game & Entertainment Technology*
- Interactive Media Design*
- Interactive Media Informatics*
- Interactive Media Technology*
- Interior Architecture & Design*
- Information Technology
- Mobile & Wireless Computing
- Moving Images*
- Product & Industrial Design*
- Retail Hospitality Design*
- Veterinary Technology
- Visual Communication*

** Those with partial Colour Appreciation De ciency are also not eligible.*

National Service (NS)

Eligibility Guide for Deferment from NS

Male Singaporeans and Singapore PRs who are NS-liable are eligible for 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 and Institute of Technical Education students) as at 1 January of the course commencement year. This will be subject to the review of the relevant authorities from time to time.

Reservation of Place for National Servicemen

The Polytechnic will reserve a place for successful male applicants who are unable to obtain approval to defer their Singapore Full-Time National Service (NS) or to be disrupted from their full-time NS to join the current intake.

Reservation of a place is only applicable to male Singaporeans and Singapore PRs who are required to serve their Singapore National Service and are admitted to a Polytechnic course for the rst time.

To request for reservation of a place, please refer to the Enrolment Guide in the Enrolment Package for more information.

Subject Exemption

Applicants with good grades in the relevant subjects at their Singapore-Cambridge GCE A Level or ITE Higher NITEC quali cation may apply and be granted subject exemption on a subject by subject basis.

This is only applicable to applicants who have accepted the course offer and enrolled at the Polytechnic. They may check with the Course Manager for details and eligibility during orientation.

Information For International Students

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Information for International Students

Temasek Polytechnic provides our international students with an excellent academic experience that has a strong practical orientation that gets you ready for industry. You will thrive in our caring environment, while enjoying a comprehensive range of state-of-the-art academic and co-curricular facilities.

Our International Students Office coordinates the recruitment of international students and organises immersion and cultural programmes to facilitate your smooth transition to life in Singapore and at TP. We endeavour to enhance your learning experience by creating a "home away from home" and offer a series of services to help you adapt and adjust to life in Singapore. Our ESP approach aims to meet your Emotional, Social and Practical needs throughout your experience as a member of the TP Family.

The Temasek Polytechnic International Student interest group provides a platform for social and cross-cultural experiences for international and local students. It holds regular activities and events to promote cross-cultural awareness and friendship, providing you with opportunities to share your rich cultural background with others through food, songs and dances, fashion shows and exhibitions. In addition, an International Student Friendship Family Programme provides opportunities for you to experience Singaporean hospitality and the culture and life in Singapore. Temasek Polytechnic was awarded the Singapore Tourism Board (STB) inaugural Singapore Education Awards for "Best Host for International Students Studying in Singapore" in March 2007. TP was judged to be the best in both its contribution to the well-being of international students and provision of an inviting, intellectually stimulating environment for learning and integration into the local community. We are certainly proud of the award and the support of our local and senior international students in welcoming our International Freshmen.

Minimum Entry Requirement

The minimum requirement for admission into a three-year diploma programme is a College or High School Certificate, equivalent to the Singapore-GCE O level certificate. The list of acceptable international qualifications is as follows:

List of Acceptable Qualifications

Please provide certi ed true copies of your certi cates with detailed results (in English).

Country	Qualification
Australia	High School Certi cate or Senior Certi cate (year 12)
Bangladesh (+)	Higher Secondary Certi cate (HSC) / Intermediate Certi cate issued by The Board Of Intermediate & Secondary Education.
Brunei	GCE O Level
China (+)	GAO KAO - National College Entrance Examination. HUI KAO - Senior High School Graduation Certi cate.
Others	Equivalent to the United Kingdom GCE O Level Examinations.
Others (English)	A College or High School Certi cate
Hong Kong	Hong Kong Certi cate of Education (HKCEE)with English Language (Syllabus B)
India	Secondary School Certi cate (Year 10) obtained from the following examination boards : • The Council for the Indian School Certi cate Examinations (ICSE) • The Central Board of Secondary Education (CBSE) • Maharashtra State Board • Kerala Board • Tamil Nadu Board of Secondary School Leaving Certi cate Examination • Board of Anglo-Indian School Leaving Certi cate Examination, Tamil Nadu • Board of Matriculation, Tamil Nadu Otherwise, the Senior Secondary School Certi cate (Year 12) is required.
Indonesia (+)	SMA/SMU Ebtanas certi cate, including your school results.
Malaysia	• Uni ed Examination Certi cate (UEC) - must complete the senior middle section. • Sijil Pelajaran Malaysia (SPM) Applicants must have a minimum of grade 6 for their Bahasa Inggeris (Paper 122/Paper 322) / Communication English

Country	Qualification
Mauritius	Cambridge Overseas School Certi cate (University of Cambridge local examination syndicate) or GCE O Level (Associated Examining Board, University Of London School Examination Board And University Of Oxford Delegacy Of Local Examinations)
Myanmar (+)	Basic Education High School Certi cate
Nepal (+)	Pro ciency Certi cate (previously known as the Intermediate Examination)
Pakistan (+)	Intermediate/Higher Secondary School Certi cate issued by The Board of Intermediate & Secondary Education
Philippines	High School Diploma With NSAT
Sri Lanka	Sri Lanka GCE O Level Examination
Vietnam (+)	Certi ed True Copy of Pho Thong (commonly known as 'Bang Tu Tai'/ Baccalaureate) Certi cate

Applicants from the countries marked with (+) are required to produce photocopies of **one** of the following English tests.

i) **GCSE** - General Certi cate of Secondary Education English Language with a minimum grade of C.

ii) **IELTS** - International English Language Testing System (IELTS) with a minimum score of band 5.0.

iii) **TOEFL** - Test of English as a Foreign Language with a minimum score of 500 (Paper- based)/173 (Computer-based). Please request Educational Testing Service (ETS) to send a copy of your TOEFL score report directly to Temasek Polytechnic. Our institutional code is 8176.

Note: These English tests must be taken within two years from the date of application.

Application for Admission and Fees

Please refer to the sections on Admission and Requirements and Tuition Fee Information for details. The International Students application form is available online at www.tp.edu.sg/home/admissions/is.htm (available two weeks before the application period) or write to:

International Students Office
International Relations & Industry Services Department
Temasek Polytechnic
21 Tampines Avenue 1
Singapore 529757

Tuition Fee and Tuition Grant Scheme

International students on the three-year diploma programmes enjoy a subsidised tuition fee when you apply for a tuition grant from the Singapore Government. Eligibility is based on your academic performance. The subsidised tuition fee for Academic Year 2008/2009 is about $3,150.00 (all fees are in Singapore dollars and subject to changes). The fees are payable in two semesters, at the start of each semester. You will need to sign a Tuition Grant (TG) Agreement with the Singapore Government in return for the benefit of a subsidised education. You will be bonded to work in Singapore for three years upon completion of your course. Two sureties are required for executing the TG Agreement.

Sureties can be of any nationality but must be above 21 years of age and must not be bankrupts. Your sureties can sign the TG Agreement in your country, in the presence of a notary public. Students who do not take up the tuition grant will have to pay the full-fee.

Other Fees

Besides the tuition fee, other fees of $163.50 for Academic Year 2008/2009 are payable annually. All fees are payable during your course of study, including the semester when you are on your Student Internship Programme.

Group Hospitalisation and Surgical Insurance

The cost of hospitalisation in Singapore may be high for international students. TP has arranged a Group Hospitalisation and Surgical Insurance policy to provide affordable hospitalisation for all full-time international students. It is compulsory for you to pay an annual insurance premium which may range from $35 to $50 together with your tuition fee (the premium is subject to review and change without prior notice). The policy covers hospitalisation expenses due to illness and/or accidental injuries but not pre-existing medical conditions and congenital anomalies.

Other Information

Tuition Fee Loan

International students who are Tuition Grant holders on the three year programmes may apply for a tuition fee loan by 15 May of the year. The guarantor must be a Singapore Citizen or Singapore Permanent Resident, aged above 21 years but below 60 years old.

Immigration

You are required to have a valid Student Pass and Visa (if applicable) during your course of study at TP. TP will apply to the Immigration & Checkpoints Authority (ICA) for the Student Pass on your behalf. You must ensure that the application for the Student Pass is submitted to TP as soon as you have been offered a place of study at TP as the whole Student Pass application process may take more than two months.

Accommodation

Most international students choose to stay near the campus to minimise the travelling time needed to and from the campus and home. You can rent a room from a local family. You will 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. You may attempt to supplement your income through part-time work. However, this should not be relied upon as the only source of finance. Part-time work must be done outside of school hours and co-curricular activities, and it must not affect your academic performance.

The following are estimates for planning purposes only. The expenses may vary with the spending habits of the individual student.

Estimated Cost of Living	Monthly in S$	Yearly in S$
Accommodation • Cost varies depending on whether it is twin-sharing, furnished or unfurnished	200 – 500	2,400 – 6,000
Food	150 – 300	1,800 – 3,600
Transport • Cost varies • You can buy a student concession EZ Link card which enables you to travel on buses and the MRT	50 – 100	600 – 1200
Books and supplies	-	250 – 500
Class Fund	-	50 – 200
Personal Expenses • Cost varies depending on personal spending habits (clothes, entertainment, hair cuts, toiletries)	30 – 100	360 – 1,200
Total (Approximate)	430 – 1,000	5,460 – 12,700

Financing Your Studies

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Tuition Fee Information

Tuition Fee for Full-Time Diploma Courses

The tuition fee for Academic Year 2008 / 2009 for all full-time diploma courses is $2,100* per academic year for Singapore citizens, $2,310* for Permanent Residents (SPR) and $3,150* for international students. Tuition fee is payable every semester.

**All currency is in Singapore dollars. Fees are subject to revision. Students will be noti ed prior to enrolment.*

Tuition Grant

The Government, through the Ministry of Education, provides tuition grants to full-time students to help pay part of the training cost. With the grant, students are required to pay only the difference between the training cost and the tuition grant which is a nominal sum in relation to the recurrent cost of providing such an education. Singaporeans who take up the tuition grant will not be bonded. However, those on Public Service Commission (PSC) scholarships or bursaries will continue to be bonded under the terms of the scholarships or bursaries. Non-Singaporeans and Permanent Residents of Singapore who opt for the tuition grant, except those already bonded by PSC, are required to work in Singapore for three years upon completion of their courses. In view of the high subsidy paid out of public funds for these students, this requirement ensures that they discharge some of their obligations to the Singapore public, as well as provide them with an opportunity to gain valuable working experience here. Students who opt not to take up the tuition grant shall pay the difference between the full training cost and tuition fee plus the Goods and Services Tax (GST) at the prevailing rate.

Reserved Places for National Servicemen

Male students may be offered vacancies before enlistment to National Service. For such cases, these students shall pay tuition fee rates applicable to the academic year in which the vacancy has been offered.

Other Fees

Besides tuition fees, other fees are payable once every academic year by all Singaporeans, Singapore Permanent Residents and international students. Orientation fee applies to new students only. All full-time international students are also required to buy the Group Hospitalisation and Surgical Insurance to assist them in paying part of the medical cost in Singapore.

Group Personal Accident (GPA) Insurance

All full-time and part-time subsidised students are covered by the Group Personal Accident (GPA) Insurance Policy. This scheme provides insurance coverage for accidents sustained by the students. The bene ts include compensation of up to $50,000 per student upon death, or a proportion thereof for permanent injuries, and up to $6,000 per accident per student for medical expenses incurred from an accident* (the amount of coverage is subject to change). The annual insurance premium is part of the total fees payable at the start of each academic year.

** Please refer to the Insurance Policy document on the types of accidents/injuries which are covered under this policy.*

Summary of Fees for All Full-Time Subsidised Diploma Courses

Type of Fees	Academic Year 2008/2009	Semester 1	Semester2
a) Tuition Fees[1]			
Singaporeans	$2,100.00	$1,050.00	$1,050.00
SPR Students	$2,310.00	$1,155.00	$1,155.00
International Students (IS)	$3,150.00	$1,575.00	$1,575.00
b) Other Fees			
Examination[1]	$30.00	$30.00	-
GPA Insurance[2]	$ 3.00	$ 3.00	-
Sport and Wellness[2]	$25.00	$25.00	-
Orientation (new students only)[2]	$10.50	$10.50	-
Group Hospitalisation and Surgical Insurance (IS only)[2]	$43.00	$43.00	-
Students' Union[3]	$20.00	$20.00	-
Miscellaneous[2]	$23.50	$23.50	-
Total Payables			
Singaporeans	$2,212.00	$1,162.00	$1,050.00
SPR Students	$2,422.00	$1,267.00	$1,155.00
International Students (IS)	$3,305.00	$1,730.00	$1,575.00

Notes:
[1] Fee is exclusive of GST
[2] Fee is inclusive of GST
[3] Fee has no GST

All fees stated are subject to revision and is on the assumption that students have opted for the tuition grant.

Payment of Fees

Payment Through Inter-Bank GIRO (IBG)

IBG is an easy way for students to pay fees, or receive payment from the Polytechnic. Such transactions between you and the Polytechnic can be effected through your guardian's savings or current account with any of the IBG participating banks. New students will receive two IBG application forms for fee deduction and fee payable (where applicable) in their enrolment packages by post. Please submit these two forms, together with a photocopy of the front page of the bank book or statement showing the bank account name and number, to us for processing. The bank will then con rm the IBG arrangement. Prior to deduction from your bank account, you will be informed of the amount and date of GIRO deduction. Please be reminded to maintain suf cient funds in the bank account on or prior to the deduction date.

Payment By Cheque

Cheques should be crossed and made payable to "Temasek Polytechnic". Kindly ensure that the cheques have been clearly and properly drawn up and that suf cient funds are maintained in the bank accounts.

Late Fee

A late fee of $15 shall be imposed if fees are not paid by the due date as stipulated on the fee voucher, or as advised by the Finance & Administration Department.

Issuance of Receipts

Receipts are issued for payments made personally at the cashier counters. For payments made by cheques, receipts shall be issued upon request.

Refund Policy on Withdrawal from or Deferment of Course of Study

Students who wish to withdraw from or defer their course must submit their withdrawal forms / deferment application, duly completed, to the Registrar. The effective date of withdrawal or deferment is 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, students will still be liable to pay fees, regardless of whether they attend classes or not. New students withdrawing from a course before the commencement of an academic year on medical or exceptional grounds may be allowed a full refund of fees less an administrative charge of $50. New and existing students withdrawing from a course within the rst week of a semester may be allowed a refund of 75% of the tuition fee and 100% refund of examination, sports and wellness and miscellaneous fees. There shall be no refund for withdrawal thereafter.

Financial Assistance Schemes Available for Full-Time Diploma Courses

The Financial Assistance Schemes cover only the tuition fee. You will have to pay for the other fees using your own funds by NETS, CashCard, cheque or IBG.

Mendaki Tertiary Tuition Fee Subsidy

Malay/Muslim students, who are Singapore citizens and attending full-time diploma courses, may apply to Yayasan Mendaki for free tuition fee subsidy through the Polytechnic. Details of the scheme are found in the scheme application forms, which are available at the Finance & Administration Department. You will be informed of the outcome of the application(s) of your nancial assistance scheme(s) by the respective nancial scheme organisations. Should your application for the nancial scheme be unsuccessful, you shall be required to pay the outstanding fees at the Finance & Administration Department.

Post Secondary Education Account (PSEA, Previously the Edusave Account)

Students may apply to use their own or their siblings' PSEA for payment of tuition and other fees charged by Temasek Polytechnic, subject to terms and conditions governing the PSEA set by MOE. The application procedures will be disseminated by MOE in late March 2008.

Central Provident Fund (CPF) Approved Education Scheme

Full-time students may opt to use CPF to pay the tuition fee. You can either use your own or your parents' CPF savings subject to rules stipulated by the CPF Board. Further enquiries may be made at CPF Board (Education Scheme Section) or its branches. The CPF Board will process the application and inform the account holders of the outcome of the application. For successful applicants, the CPF Board will pay the tuition fee, deducted from savings in the CPF member's Ordinary Account, directly to the Polytechnic. The CPF members may request a CPF statement from CPF Board to verify the amount deducted.

Tuition Fee Loan Scheme

Full-time students can apply for the tuition fee loan up to 75% of the tuition fee through DBS Bank. Interest will be charged on the loan upon graduation or withdrawal from the course, whichever is earlier. Details of the scheme are given in the scheme application forms which are available at the Finance & Administration Department.

Scholarships and Bursaries

Scholarships

There are two categories of scholarships available. These are:

1. Academic Scholarships

TP Administered Academic Scholarships

The TP Administered Academic Scholarships are awarded to junior and senior students who possess outstanding academic records and have a track record of involvement in Co-Curricular Activities. The Polytechnic will select and award these Scholarships to eligible and deserving students based on merit. Students do not have to apply for TP Administered scholarships.

Non-TP Administered Scholarships

Non-TP Administered Scholarships are administered by the organisations sponsoring the scholarship. Announcements on such scholarships are publicised to students through email and interested applicants submit their application directly to the sponsoring organisations for consideration.

2. Co-Curricular Activities (CCA) Scholarships/Book Grants

These are awarded to students who have contributed signi cantly to co-curricular activities in the Polytechnic. Leadership qualities and academic performance are also taken into consideration in the selection process.

Bursaries

Bursaries are awarded to students who require nancial assistance to continue their course of study at the Polytechnic. Although nancial need is a criterion, a satisfactory academic performance is also a pre-requisite for selection.

Joint Polytechnic-Singapore Armed Forces Diploma Scheme (JPSDS)

The Singapore Armed Forces (SAF) offers sponsorship for three-year full-time diploma courses to GCE O level and ITE holders who are interested in pursuing a career with the Army, Navy or Air Force.

Admission Requirements

Academic

The academic admission requirements are the same as those speci ed for GCE O/A level and ITE holders applying for the full-time course. The subjects are common to those taken by full-time students. Please refer to the relevant section in the prospectus for details.

Medical

Applicants must be physically t and satisfy the SAF medical requirements.

Citizenship

Applicants must be Singapore Citizens/ Permanent Residents.

Selection Procedure

Selection of eligible applicants for admission is based on merit. Selection shall be at the discretion of Temasek Polytechnic and the SAF.

Scheme of Sponsorship

Successful applicants are required to ful ll a 4-year bond after their graduation. Male candidates who have not completed NS will have to ful l a minimum term of engagement of ve to seven years (inclusive of the bond and the full time NS liability period).

Course Fee

The Ministry of Defence will pay for all the tuition and other compulsory fees required by the Polytechnic throughout the three-year Diploma course.

Allowance

Successful applicants will be paid a monthly allowance of $1,000 for Combat/ Combat-Technical Specialists and $600 for Technical/Operational-Technical Specialists throughout the three-year course at the Polytechnic. A Study Bonus of $1,200 is also payable for every successful semester.

Career Prospects

Combat/Combat-Technical Specialist

As a Combat/Combat-Technical Specialist, you will embark on a challenging and rewarding career that few can offer. You will be trained to be a leader of men, handling, servicing and maintaining modern and sophisticated equipment and weapon systems.

Technical/Operational-Technical Specialist

As a Technical/Operational-Technical Specialist, you will acquire hands-on skills and in-depth knowledge of high technology equipment and systems. You will be employed in engineering/ maintenance work, which will cover areas of specialisation such as telecommunications, radar, engines and weapon systems.

Career Advancement

After acquiring suf cient skills in the respective specialist elds, 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 of cers.

Application Procedure

Interested applicants may enquire at:
SAF Careers Centre
5 Depot Road
#01-09
Singapore 109681
Tel : 1800-270 5252 (Army)
1800-278 0000 (Navy)
1800-270 1010 (Air Force)

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Universities Offering Advanced Standing

Australia

- University of Adelaide
- Australian Maritime College
- Australian National University
- Bond University
- University of Canberra
- Central Queensland University
- Charles Darwin University
- Charles Sturt University
- Curtin University of Technology
- Deakin University
- Edith Cowan University
- Flinders University
- Grif th University
- International College of Hotel Management
- James Cook University
- La Trobe University
- Macquarie University
- University of Melbourne
- Monash University
- Murdoch University
- University of New South Wales
- University of Newcastle
- University of Queensland
- Queensland University of Technology
- RMIT University
- University of South Australia
- Southern Cross University
- University of Southern Queensland
- Swinburne University of Technology
- University of Sydney
- University of Tasmania
- University of Technology, Sydney
- University of Western Australia
- University of Western Sydney
- University of Wollongong
- Victoria University

Canada

- University of Alberta #
- University of Lethbridge
- McMaster University
- Okanagan University College
- Ryerson University
- Simon Fraser University
- University of Toronto
- University of Victoria

United Kingdom

- University of Aberdeen
- University of Abertay Dundee
- American InterContinental University – London
- Anglia Polytechnic University
- Aston University
- University of Bath
- University of Birmingham
- Birmingham College of Food, Tourism & Creative Studies
- Bournemouth University
- University of Bradford
- University of Bristol
- Brunel University
- University of Buckingham
- Cardiff University
- University of Central England in Birmingham
- University of Central Lancashire
- Central St Martins College of Art & Design
- City University
- Coventry University
- De Montfort University
- University of Dundee
- University of East Anglia
- University of East London
- University of Edinburgh
- University of Essex
- University of Exeter
- University of Glamorgan
- University of Glasgow
- Glasgow School of Art
- University of Greenwich
- Heriot-Watt University
- University of Hudders eld
- University of Hull
- University of Kent
- Kent Institute of Art & Design
- Kingston University
- Lancaster University
- University of Leeds
- Leeds Metropolitan University
- University of Leicester
- University of Lincoln
- University of Liverpool
- London Metropolitan University
- King's College London
- University of London: Queen Mary
- University of London: Royal Holloway
- University College London
- London College of Fashion
- London College of Printing
- University of Loughborough
- University of Luton
- University of Manchester
- Manchester Metropolitan University
- Middlesex University
- Napier University
- University of Newcastle-upon-Tyne
- Northumbria University
- University of Nottingham
- Nottingham Trent University
- Oxford Brookes University
- University of Paisley
- University of Portsmouth
- Queen's University Belfast
- University of Reading
- Robert Gordon University
- Royal College of Art
- University of Salford

- University of Shef eld
- University of Southampton
- South Bank University
- Staffordshire University
- University of Stirling
- University of Strathclyde
- University of Sunderland
- University of Surrey
- University of Sussex
- Thames Valley University
- University of Ulster
- University of Wales, Aberystwyth
- University of Wales Institute, Cardiff
- University of Wales, Swansea
- University of Warwick
- University of Westminster
- University of the West of England, Bristol
- University of Wolverhampton
- University of York

The following British Universities accept our Law & Management graduates into the First Year of their Law degree programmes:

- University of Birmingham
- University of Durham
- University of Exeter
- University of Leicester
- King's College London
- University College London
- London School of Economics
- University of Southampton

United States of America

- Art Center College of Design
- Arizona State University#
- University of Bridgeport
- California State University, Fresno
- Carnegie Mellon University
- Cogswell College of Art
- Fairleigh Dickinson University
- Georgia College & State University
- University of Hawaii
- University of Hawaii, Hilo
- Hawaii Paci c University
- Indiana University, Purdue University, Indianapolis (IUPUI)
- Johnson & Wales University
- Lin eld College
- Marquette University
- University of Maryland – College Park#
- Michigan Technological University
- University of Minnesota, Crookston
- University of Northern Iowa
- North Dakota State University
- Ohio State University#
- Ottawa University
- Parsons School of Design
- Pratt Institute
- Rhode Island School of Design
- San Francisco Design Academy
- Savannah College of Art and Design
- Southern California Institute of Architecture (SCI-ARC)
- Southern Illinois University
- South Dakota State University
- State University of New York - Buffalo
- State University of New York - Geneseo
- State University of New York - Oswego
- Syracuse University
- The School of The Art Institute of Chicago
- University of Tampa
- University of Toledo
- University of Wisconsin - Stevens Point
- University of Wisconsin - Stout
- Washington State University
- Wichita State University

Finland

- Vaasa Polytechnic

Germany

- State Academy of Fine Arts Stuttgart

Hong Kong (SAR)

- City University of Hong Kong

Italy

- Domus Academy

Mauritius

- University of Mauritius

Netherlands

- Einhoven Design Academy (The Design Academy)

New Zealand

- University of Auckland
- University of Canterbury
- Lincoln University
- Massey University
- University of Otago
- University of Waikato
- Victoria University of Wellington

Singapore

- Nanyang Technological University
- National University of Singapore
- Singapore Management University
- SIM University (UniSIM)

Sweden

- UMEA Academy, Institute of Design

Switzerland

- International Hotel Management Institute, Lucerne
- International Tourism Institute, Lucerne
- Swiss Hotel Association, Hotel Management School at Les Roches
- University Centre Cesar Ritz

Professional Bodies

- Association of Chartered Certi ed Accountants (ACCA), UK
- British Computer Society
- Chartered Institute of Management Accountants (CIMA), UK
- Chartered Institute of Marketing (CIM), UK
- Institute of Legal Executives (ILEX), UK
- Singapore Association of the Institute of Chartered Secretaries & Administration (SAICSA)

Note: This is only a listing of universities and professional bodies which have given advanced standing and accreditation to Temasek Polytechnic in writing. Students are advised to check with the relevant professional bodies and government agencies on recognition of the quali cation before deciding on a university of their choice.

 # As a general rule, most North American universities that do not enter into institutional agreement with us on credit exemptions/transfer arrangements welcome applications from TP students who will be evaluated on a case-by-case basis.

Continuing Education Centre

The Continuing Education Centre (CEC) at TP is committed to the practical re-skilling and professional development of adult learners. The Centre offers both certi cated and public run courses. It also conducts customised in-house training programmes for organisations. Courses offered are in the areas of:

- Aviation Management
- Business Management
- Design
- Engineering
- Entrepreneurship
- Financial Management
- Hospitality & Tourism Management
- Human Resource Management
- International Business
- IT & Info-communication
- Life Sciences
- Marketing & Communication
- Para-Legal Studies
- Personal Development
- Security & Safety Management
- Supply Chain Management

To encourage adult learners acquire valuable knowledge and develop relevant skills to meet the challenges in a dynamic technology-driven economy, the Centre has recently introduced the following courses:

- Specialist Diploma in Interactive Edutainment
- Specialist Diploma in Environment and Water Technology

The Centre also offers a wide range of Singapore Workforce Skills Quali cations (WSQ) modules for the retail, infocomm and tourism industries under the Singapore Workforce Development Agency (WDA) framework. These modules are designed to equip the workforce with the necessary employability, industry and occupational skills to remain competitive and add value to the organisation.

To date, the Centre has trained more than 700 participants under the framework. Its clients include Cortina Watch Pte Ltd, IS Cleaning Services Pte Ltd, M Hotel, Palm Beach Seafood Restaurant, Prime Supermarket Limited, RSH (Singapore) Pte Ltd and Sentosa Leisure Management Pte Ltd.

For enquiries, please contact the CEC at:
Tel: +65 6788 1212
Fax: +65 6788 1475
Email: cec@tp.edu.sg
www.tp.edu.sg/home/cec.htm

Security Industry Institute

The Security Industry Institute (SII) is jointly established by Temasek Polytechnic and Singapore Workforce Development Agency. It was set up in September 2007 to offer nationally recognised and comprehensive professional security training and placement for security personnel. SII, a national Continuing Education and Training Institution for the security workforce, aims to enhance the security industry's professional image, quality of training, operating standards and employability of the workforce through various skills upgrading initiatives.

SII offers three levels of Security WSQ quali cation and conducts customised training programmes for organisations. The levels of Security WSQ offered are:-

1. WSQ - Certi cate in Security Operations
2. WSQ - Advanced Certi cate in Security Supervision
3. WSQ - Diploma in Security Management

SII will also serve as a career centre to partner with industry players and provide guidance on career and skills upgrading for job seekers and workers in the security industry.

For enquiries, please contact SII at:
Security Industry Institute
10 Eunos Road 8, #14-01/02
Singapore Post Centre
Singapore 408600

Tel: 65 6225 5744 (6-CALL-SII)
Email: sii@tp.edu.sg
www.sii.edu.sg

Corporate Information

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Board of Governors

Chairman

Mr Seah Moon Ming
Deputy CEO
ST Engineering Ltd;
President
ST Electronics Ltd

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Principal & CEO
Temasek Polytechnic

Mr Keith Budge
Senior Vice President &
General Manager, Asia Paci c & Japan
Business Objects

Dr Foong Wai Keong
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Ecquaria Technologies Pte Ltd

Mr George Huang Chang Yi
Managing Director
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Mr Liow Voon Kheong
Chief Executive Of cer
MTIC Holdings Pte Ltd

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Chief Executive Of cer
International Trade Institute of Singapore
Pte Ltd

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Senior Global Account Director
Senior Global Design Director
Philips Electronics Singapore Pte Ltd

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Mr Sim Kay Wee
Senior Regional Representative - Asia Paci c
Jet Airways (India) Limited

Ms Sum Chee Wah
Director (Education Programmes Division)
Ministry of Education

BG Tan Yih San
Commander 3rd Division
Singapore Armed Forces and
Future Systems Architect
Ministry of Defence

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Goodwins Law Corporation

Mdm Yeoh Chee Yan
Deputy Secretary (Policy)
Ministry of Defence

Mr Zee Yoong Kang
Chief Executive Of cer
Employment & Employability Institute

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Deputy CEO
ST Engineering Ltd and
President
ST Electronics Ltd

Deputy Chairman

Mr Sim Kay Wee
Senior Regional Representative - Asia Paci c
Jet Airways (India) Limited

Members

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Principal & CEO
Temasek Polytechnic

Ms Sum Chee Wah
Director
Education Programmes Division
Ministry of Education

BG Tan Yih San
Commander 3rd Division
Singapore Armed Forces and
Future Systems Architect
Ministry of Defence

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Human Resource & Staff Development
Temasek Polytechnic

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Temasek Humanities & Social Sciences
School

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Registrar and
Director
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Deputy Principal and
Director
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Director
Temasek Applied Science School

Mr Moses Wong
Director
Temasek Design School

Mrs Lay-Tan Siok Lie
Director
Temasek Engineering School

Ms Lim Sok Keow
Director
Temasek Informatics & IT School

Appointed Members (Term of Office: 17 April 2006 to 20 April 2008):

Mr Tan Dek Yam
Director
Fast Central Of ce and
Computer & Information Systems

Mrs Sally Chew
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International Relations & Industry Services

Mr Albert Toh
Deputy Director
Continuing Education Centre

Mr Lim Thim Veng
Assistant Director
Strategic & Quality Development Department

Elected Members (Term of Office: 17 April 2006 to 20 April 2008):

Dr Vijayakumari Seevaratnam
Course Manager
Diploma in Biomedical Science and
Diploma in Consumer Science & Technology
Temasek Applied Science School

Mr Sng Choon Leng
Course Manager
Business Studies Grouping
Temasek Business School

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Temasek Design School

Mr Wong Kia Ngee
Deputy Director/Curriculum Management
Temasek Engineering School

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Temasek Humanities & Social Studies School

Mdm Mak Yoke Lai
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Marketing
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Faculty of Medicine
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Lynk Biotechnologies Pte Ltd

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(Pte) Ltd

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United Engineers Limited

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Temasek Business School

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Vice President & Managing Director, Asia
Paci c
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Dr Chitra Rajaram
Managing Director
GolinHarris - Singapore

Mr Kon Yin Tong
Managing Partner
Foo Kon Tan Grant Thornton

Mr Roger Khoo
Chief Executive Of cer
GasHub Pte Ltd

Mr Sim Kay Wee
Senior Regional Representative - Asia
Paci c
Jet Airways (India) Limited

Mr Allein Moore
Publisher/CEO
Blueprint Media Pte Ltd

Mr Richard Chua Khing Seng
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Mr Peter Cuthbert Low
Partner
Peter Low Partnership

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Snr Creative Director
Philips Electronics Singapore Pte Ltd

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Director
Temasek Design School

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Two Oceans Film Company

Mr Kong Yit San
Director (Parks)
National Parks Board

Mr Kevin Lee
Creative Director
Spoon Creative

Mr Vincent Lim
Managing Director
BIG Communications Pte Ltd

Mr Patrick Low
Executive Creative Director
Young & Rubicam

Mr Derek Mackenzie
Partner
Designphase

Mr K F Seetoh
Chief Executive / Makan Guru
Makansutra (S) Pte Ltd

Mr Adrian Tan
CEO
The Ad Planet Group

Mr Bert Tan
Director
Bodynits International Pte Ltd

Mr Sebastian Tan
Managing Director/Principal Photographer
Shooting Gallery/Wishing Well

Mr Hensley Teh
Managing Director
m)phosis

Mr Daniel Yam
Director
Advance Apparel Pte Ltd

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Chartered Semiconductor Manufacturing Ltd

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Utopia-Aire Pte Ltd

Assoc Prof Chong Chee Leong
Dean
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SIM University

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CPG Facilities Management Pte Ltd

Mr Chue Fook Chee
Senior Consultant
M&E Engineering Division
CPG Consultants Pte Ltd

Assoc Prof Ho Hiang Kwee
Director, Energy Systems Laboratory
Division of Thermal & Fluids Engineering
School of Mechanical & Aerospace Engineering
Nanyang Technological University

Mr Daniel Ingitaraj
Director
Developer & Platform Evangelism
Microsoft Singapore Pte Ltd

Mr Kon Yin Tong
Managing Partner
Foo Kon Tan Grant Thornton

Dr Kwok Wai Onn, Richard
Senior Vice President / Chief Technology Of cer
Singapore Technologies Kinetics Ltd

Mr Lim Yeow Khee
Advisor
Singapore Institute of Aerospace Engineers

Mr Seah Soon Huat
Vice President
Workshops Division
SIA Engineering Company

Prof Seeram Ramakrishna
Dean
Faculty of Engineering
National University of Singapore

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Singapore Sales & Service Operation
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Mr Wu Tek Ming
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TUV SUD PSB Pte Ltd

TEMASEK INFORMATICS & IT SCHOOL

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Asia Paci c and Japan
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Director
Temasek Informatics & IT School

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Avaya Singapore Pte Ltd

Mr Tom Cheong
Managing Director
CISCO Systems (USA) Pte Ltd

Dr Foong Wai Keong
President & CEO
Ecquaria Technologies Pte Ltd

Mr Edward Fun
General Manager
Apple Computer South Asia Pte Ltd

Mr Michael Fung
Associate Director
Of ce of Strategic Planning
Singapore Management University

Mr Kwa Kim Chiong
Chief Executive Of cer
Just Login Pte Ltd

Mr Barney Lau
Managing Director
Microsoft Singapore Pte Ltd

Dr Leong Mun Kew
Programme Director
Services Research
Institute for Infocomm Research

Mr Stephen Lim
CEO/Managing Director
SQL View Pte Ltd

Mr Paul Ng
Deputy Director
Infocomm Manpower Development Division
Infocomm Development Authority

Mr Chris Soh
President
Singapore Gamers' Association

Mr John Treloar
Education Director, Asia Paci c
Adobe Systems Pty Ltd

Ms Shirley Wong
Managing Director
Frontline Solutions Pte Ltd

Senior Management

Mr Boo Kheng Hua
Principal & CEO

Mr Edmond Khoo
Deputy Principal
Director, Temasek Humanities & Social Sciences School

Mr Yeo Li Pheow
Deputy Principal
Director, Temasek Business School

Ms Sharon Soh
Registrar
Director, Student & Alumni Affairs

Mrs Soon-Ong Meng Wan
Director, Temasek Applied Science School

Mr Moses Wong
Director, Temasek Design School
Director-in-charge, China Focus

Mrs Lay-Tan Siok Lie
Director, Temasek Engineering School
Director-in-charge, Of ce of Research & Technology

Ms Lim Sok Keow
Director, Temasek Informatics & IT School

Mrs Lily Teo
Director, Finance & Administration
Director-in-charge, Strategic Facilities Development

Mrs Chua Seow Ying
Director, Human Resource & Staff Development

Mr Tan Dek Yam
Director, Computer & Information Systems
Director, FAST Central Of ce

Mrs Esther Ong
Director, Library & Information Resources

Mr George Yap
Director, Entrepreneurship Centre
Director, Projects

Mrs Sally Chew
Director, International Relations & Industry Services
Director-in-charge, Legal Matters

Mr Albert Yeo
Director, Strategic & Quality Development

Mr Ho Thim Seng
Director, Estates & Facilities Management

Mr Brendan Wong
Director, Corporate Communications

Dr Moira Lee
Acting Director, Learning Academy
Acting Director, Temasek Centre for Problem-Based Learning

Academic Directors and Course Managers

TEMASEK APPLIED SCIENCE SCHOOL

Director

Mrs Soon-Ong Meng Wan
BSc (Hons), MSc

Deputy Directors

Mrs Tay-Chan Su Chin
(Student Development)
BSc (Hons), MBA

Dr Ong Seng Poon
(Capability Development)
BSc (Hons), MSc, PhD, DipEd

Mr Michael Ko Siew Hong
(Special Projects)
BSc (Hons), MSc

Course Managers

Applied Food Science & Nutrition
Mrs Tay-Chan Su Chin
BSc (Hons), MBA

Baking & Culinary Science
Mr Sin Fook Choy Paul
BSc (Hons), MSc

Biomedical Science
Consumer Science & Technology
Dr Vijayakumari Seevaratnam
BSc (Hons), PhD

Biotechnology
Veterinary Technology
Dr Chan Pek Sian Diana
BSc (Hons), PhD

Chemical Engineering
Mr Lim Teng Kuan
BSc (Hons), MBA

TEMASEK BUSINESS SCHOOL

Director

Mr Yeo Li Pheow
BEcon., MBA, ACIS, FCPA (Aus)

Deputy Directors

Mrs Lai-Low Sock Cheng
BSc, Post GD in Systems Analysis, MBA

Mr Chen May Chang, Jerry
BSc(Hons), MSc(IE)

Mr Yeow Aik Liang, Daniel
BBA, MBA (NUS)

Mr Lim Thiam Lee, Philip
BSc, MSc, CHA, CFBE

Course Managers

Accounting & Finance
Ms Khoo Sor Hwa
BBA (Hons)

Business
Dr Sim Heng Chye, Matthew
BE (1st Class Hons) (Aus), MBA (NUS),
Ph.D. (Aus)

Business Information Technology
Mr Benedict Fernandez
BEng, Post GD in KE, MAIDT

Business Studies Grouping
Mr Sng Choon Leng
BA, DipEd, MSocSc

Culinary & Catering Management
Mr Tan Hsien Wei
BSc (HRTA), HDip in HM

Communications & Media Management
Mr Darryl David
BA (Hons), MBA

Hospitality & Tourism Management
Ms Choi Hoi San
BA (Commerce), CHA (Chartered Hotel Administrator)

Law & Management
Mrs Srila Kurup
LLB (Hons), LLM, Advocate & Solicitor

Leisure & Resort Management
Ms Goh Siew Kim, Susan
BA, G.Dip in Mktg, DipEd (Merit)

Logistics & Operations Management
Mr Goh Hock Kee
BA, MSc

Marketing
Dr Tan Kim Soon, Arnold Marc
BA, MBus, DBA

Retail Management
Mr Geoffrey da Silva
BBA (Singapore), MBA (NUS),
Fellow, Chartered Inst of Marketing (UK)

TOURISM ACADEMY @ SENTOSA

Director

Mr Lim Thiam Lee, Philip
BSc, MSc, CHA, CFBE

Course Manager

Hospitality & Tourism Business
Mr Yong Kit Mun
B Eng (Hons)

TEMASEK DESIGN SCHOOL

Director

Mr Moses Wong, PPA (G)
DipEd (Distinction), BSc, MEd

Deputy Directors

Mr Lim Chong Jin, PPA (G)
BCD

Mr Eric Koh Cheok Howe
BSc (Hons), MSc (H.F.Eng)

Course Managers

Apparel Design & Merchandising
Ms Christine Foong
Dip, SIAD (Fashion & Textile Design)

Environment Design
Retail & Hospitality Design (Covering)
Mr Perry Ng Swee Thiam
BA(Arch), MDes

Interactive Media Design
Mr Soh Yong Hern
BFA (Graphic Design)

Interior Architecture & Design
Mr Tan Ban Soon
MBA, MA (Interior Design)

Moving Images
Ms Stephanie Choo
BA, MSc (Visual Communication)

Product & Industrial Design
Ms Helen Ho Lai Ching
BSc, MA (Hons)

Visual Communication
Mr Hon Soo Tien
BFA (Hons) (Visual Communication)

TEMASEK ENGINEERING SCHOOL

Director

Mrs Lay-Tan Siok Lie
BEng (EE) (Hons), MBA, FIES

Deputy Directors

Mr Cheah Swee Hock, Frederick
BEng (Hons), MEngSc

Mr Ko Siew Hong, Michael
BSc (EEE) (Hons), MSc

Mr Leong Kit Hoong, John
BEng (EE) (Hons), MSc

Mr Wong Kia Ngee
BEng (EE) (Hons), MSc (Elect Eng)

Mr Wong Kin Nyen
BEng (Civil) (Hons), Sr. MIES

Mr Yong Fook Joo
BEng (EE), MSc (IT)

Course Managers

Aviation Management & Services
Integrated Facility Design & Management
Intelligent Building Technology
Mr Chan Kim Kai
BSc (ME), MSc (Architecture), MASME, MAIIB

Biomedical Informatics & Engineering
Mr Song Kwok Yuen
BEng (Hons), MBA

Business Process & Systems Engineering
Mr Chia Sie Yong
BEng (Hons), MSc (ISE)

Computer Engineering
Electronics
Mrs Ng-Tia Too Lam, Patricia
BEng (Hons)

Electronics/Telecommunications/ Computer Engineering/Microelectronics
Mr Chang Hark Loong
MSc (Elect Eng), MIEE

Info-Communications
Dr Yin Choon Meng
PhD, BEng (Hons)

Interactive Media Technology
Media & Communication Technology
Telecommunications
Mr Yan Seow Chiang
BSc (EE), MTelEng, MIEEE

Mechatronics
Mr Yue Keng Mun
BEng (Hons), MSc (ME)

Microelectronics
Mr Wong Cho Loo
BSc (Hons), MBA

TEMASEK HUMANITIES & SOCIAL SCIENCES SCHOOL

Director

Mr Edmond Khoo
BEcon (Hons)

Deputy Director

Mr Ben Lim
BSc (Hons), MBA (Distinction), MEd

Course Manager

Psychology Studies
Mr Ang Teck Hua
BComp, MEd (Ed Psych)

TEMASEK INFORMATICS & IT SCHOOL

Director

Ms Lim Sok Keow
BSc (Hons), MSc

Deputy Directors

Dr Lim Wie Ming
BSc (CS), MSc (CS), PhD (CS)

Mr Ng Koon Seng
BA, PGDE, MA

Course Managers

Cyber & Digital Security
Ms Mak Yoke Lai, Mandy
BSc (CS), MSc (CS)

Financial Business Informatics
Mr Toh Kee Heng
BSc (Comp & Info Sc), MSc (CS)

Game & Entertainment Technology
Mr Choy Hoe Yun, Peter
M.App.Sci.

Interactive Media Informatics
Internet & Multimedia Development
Mr N. Vijayan
MSc (Info Studies)

Information Technology
Mr Lim Kok Hwee
MSc (IT)

Mobile & Wireless Computing
Dr Lim Wie Ming
BSc (CS), MSc (CS), PhD (CS)

Academic Year 2008/2009

Semester 1

Term 1	**Mon, 21 Apr 2008 – Fri, 6 Jun 2008**
Break	Sat, 7 Jun 2008 – Sun, 22 Jun 2008
Term 2	**Mon, 23 Jun 2008– Fri 15 Aug 2008**
Study	Sat, 16 Aug 2008 – Thu 21 Aug 2008
Semestral Examinations	**Fri, 22 Aug 2008 – Fri,5 Sep 2008**
Vacation	Sat, 6 Sep 2008 – Sun, 19 Oct 2008
Supplementary Assessments / Examinations	**Fri, 12 Sep 2008 – Fri, 26 Sep 2008**

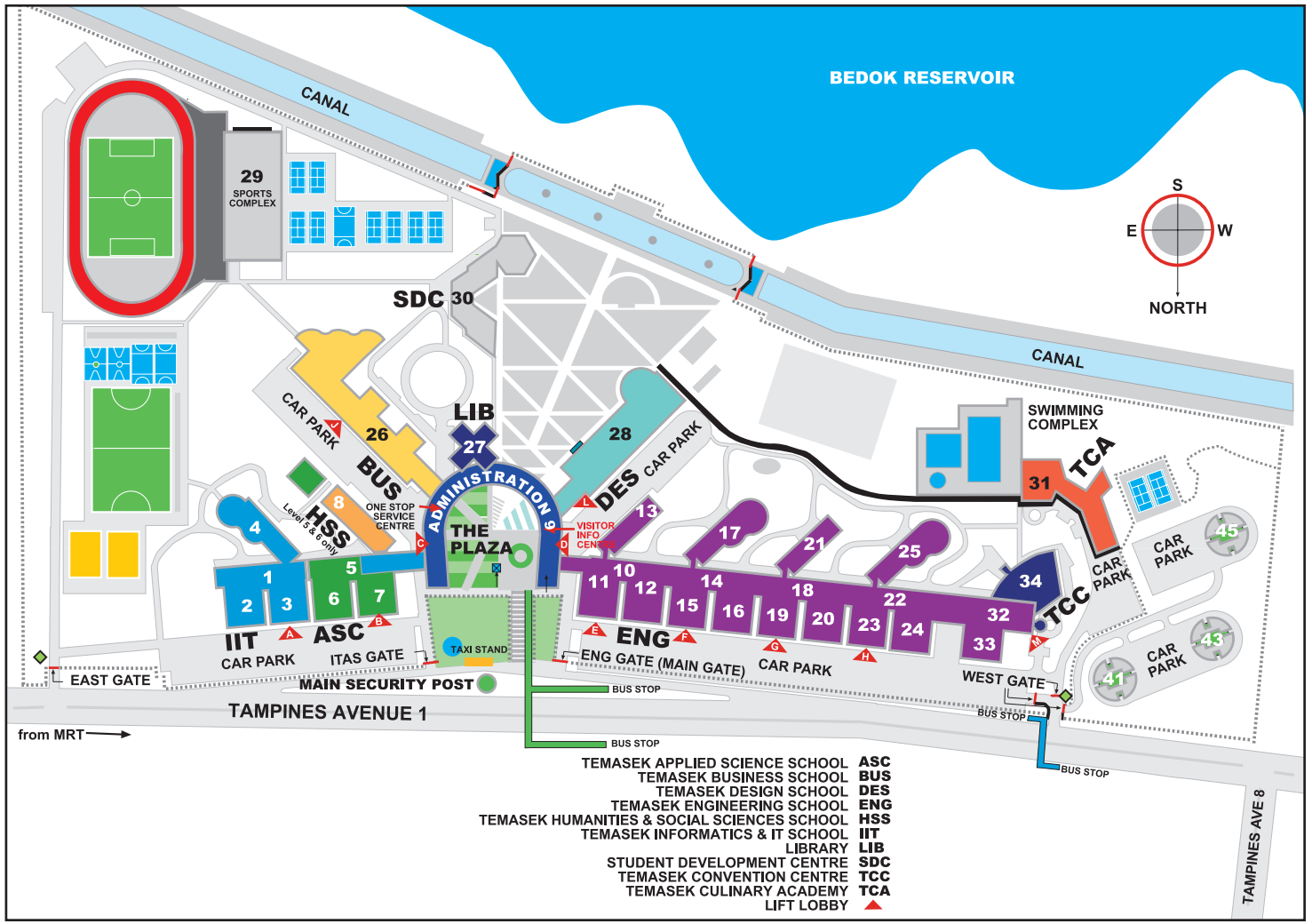
Semester 2

Term 3	**Mon, 20 Oct 2008 – Fri, 12 Dec 2008**
Break	Sat, 13 Dec 2008 – Sun, 28 Dec 2008
Term 4	**Mon, 29 Dec 2008 – Fri, 13 Feb 2009**
Study	Sat, 14 Feb 2009 – Thu, 19 Feb 2009
Semestral Examinations	**Fri, 20 Feb 2009 – Fri, 6 Mar 2009**
Vacation	Sat, 7 Mar 2009 – Sun, 19 Apr 2009
Supplementary Assessments / Examinations	**Fri, 13 Mar 2009 – Fri, 27 Mar 2009**

Note: The Temasek Design School runs on a different academic calendar. Please visit www-des.tp.edu.sg to view the calendar.

Getting to TP

Campus Map


BEDOK RESERVOIR
CANAL
CANAL
29
SPORTS COMPLEX
SDC 30
S
E
W
NORTH
CAR PARK
26
BUS
LIB
27
28
DES
CAR PARK
SWIMMING COMPLEX
TCA
31
ONE STOP SERVICE CENTRE
ADMINISTRATION 9
THE PLAZA
VISITOR INFO CENTRE
HSS
Level 5 & 6 only
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TCC
CAR PARK
45
CAR PARK
43
41
CAR PARK
IIT
CAR PARK
ASC
ITAS GATE
TAXI STAND
ENG
ENG GATE (MAIN GATE)
CAR PARK
WEST GATE
EAST GATE
MAIN SECURITY POST
BUS STOP
BUS STOP
BUS STOP
BUS STOP
TAMPINES AVENUE 1
from MRT
TAMPINES AVE 8
TEMASEK APPLIED SCIENCE SCHOOL ASC
TEMASEK BUSINESS SCHOOL BUS
TEMASEK DESIGN SCHOOL DES
TEMASEK ENGINEERING SCHOOL ENG
TEMASEK HUMANITIES & SOCIAL SCIENCES SCHOOL HSS
TEMASEK INFORMATICS & IT SCHOOL IIT
LIBRARY LIB
STUDENT DEVELOPMENT CENTRE SDC
TEMASEK CONVENTION CENTRE TCC
TEMASEK CULINARY ACADEMY TCA
LIFT LOBBY

Contact Us

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email: isohotline@tp.edu.sg

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email: cec@tp.edu.sg

Application Enquiries (Security WSQ Qualification)
Security Industry Institute
tel: +65 6225-5744
email: sii@tp.edu.sg

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tel: +65 6780-6514
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email: tcpbl@tp.edu.sg

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email: saa@tp.edu.sg

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email: AskLib@tp.edu.sg

Visitor Information Centre
tel: +65 6780-5024
email: corpcomm@tp.edu.sg

Notes

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Notes

The information in this prospectus is accurate at the time of printing and in no way constitutes any contractual obligation on the part of Temasek Polytechnic. The Polytechnic reserves the right to withdraw or alter any of the courses, amend the scale of fees or any other information without prior notice. Applicants are advised to check for the latest updates on course information and entry requirements at www.tp.edu.sg.

January 2008