



**TEMASEK
POLYTECHNIC**

bringing education to life and life to education

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PROSPECTUS 2009/10

enriching
personalities



uncovering
talent

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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.

There 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 50 market-driven full-time diploma courses in the respective disciplines. Always in tune with developments in industry, TP introduced five new courses in 2009. These are Aerospace Electronics, Aerospace Engineering, Clean Energy, Gerontological Management Studies and Pharmaceutical Science. The first three are offered by Temasek Engineering School, while the latter two are offered by Temasek Humanities & Social Sciences School and Temasek Applied Science School respectively.

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 certification 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 certification 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.

MISSION

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

VISION

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



As you carefully consider your post-secondary education options, I trust that this prospectus will be a useful guide for you. I hope it can help you identify an appropriate course among the 50 that Temasek Polytechnic (TP) offers, which suits your aptitude, interest, career and life goals.

TP is a place where cutting-edge facilities, an exciting intellectual environment, and a vibrant campus life come together. In the 18 years since our establishment, we have focused on preparing our graduates to be economically relevant, whilst having the skills that will help them succeed in life. Our market-driven and responsive curriculum is designed to broaden career options, and enhance opportunities for further education.

TP also offers you many opportunities to be engaged in activities beyond the classroom and often, beyond our national borders, be it for study trips, internships or community service. At the same time, our team of caring lecturers are 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 2009.

A handwritten signature in black ink, which appears to read 'Boo Kheng Hua'. The signature is stylized and fluid.

BOO KHENG HUA
Principal & Chief Executive Officer

Learning At TP

Learning in a polytechnic will mean a significant adjustment for some students. At TP, you can be assured of a smooth transition to poly life with TP's innovative educational approaches and systems. These approaches and systems are designed to develop your potential by maximising your acquisition of knowledge and skills and honing your talents.



TEACHING EXCELLENCE

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

PROBLEM-BASED LEARNING

As a TP student, you will gain first-hand experience of the Problem-based Learning (PBL) approach that TP has adopted since 1997. PBL is an innovative learning approach that goes beyond content knowledge and helps you acquire learning, communication,

problem-solving and teamwork skills. Through this, you will develop abilities in independent study, self-reflection and creative thinking.

Under PBL, the lecturer functions as a facilitator and an activator of student learning whilst you, the student, 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.

FLEXIBLE ACADEMIC SYSTEM

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. For a list of these subjects, please refer to the section on "Cross-Disciplinary Subjects".

CERTIFICATE PROGRAMME

In today's competitive global economy, jobs are increasingly multi-disciplinary in nature as employers demand more productivity from their workers. To help meet this challenge, Temasek

Polytechnic introduced an initiative in 2008 that is specially designed to help students attain an additional certificate while pursuing their three-year diploma in TP. Together with their TP diploma specialisation, the additional certificate in a field outside their diploma course of study will give students an edge over the competition when they graduate.

Our Certificate Programme comprises a series of subjects which have been grouped in clusters according to their specific field of study. Each subject cluster consists of four fundamental subjects in that given field. Students who are ranked in the top 10 percent in the first semester of their Freshman year are eligible to sign up for the Certificate Programme. A certificate will be awarded to students who successfully complete the four subjects in the subject cluster.

The subject clusters are:

- Certificate in Business Fundamentals
- Certificate in Cross-Cultural Studies
- Certificate in Design Fundamentals
- Certificate in Digital Literacies
- Certificate in Language & Culture (French & Japanese)
- Certificate in Life Sciences Fundamentals
- Certificate in Management & Enterprise
- Certificate in Psychology Fundamentals

CHARACTER EDUCATION

The Temasek Humanities & Social Sciences School (HSS) also oversees the Centre for Character Education. This Centre 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, band and 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 have access to CCAs that can 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 help on social, financial, emotional, career and any other personal issues. Qualified professional counsellors, trained in the areas of psychology and counselling, are there to offer a listening ear. Our counsellors also conduct workshops such as relationship management, stress management and time management to enhance the lifeskills 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

TP's 11-storey library houses a wide-ranging collection of books, audio-visual titles, journals and magazines.

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

For a break from a day's hard work, visit the library's Lifestyle Floor. There are regular arts performances at the Podium and a variety of leisure-reading materials. Cable TV programmes are also available.

For the convenience of our staff and students, research materials can be accessed via the Digital Library Portal. Other

online services include booking of study rooms and PCs, reservation and renewal of loans, online videos, databases and other e-resources.

For research skills training, our students can take up online tutorials or attend user education workshops conducted by our friendly librarians. They can also contact the librarians directly or online for assistance with their academic work.

[Resource Centre, Tourism Academy@Sentosa](mailto:Resource_Centre_Tourism_Academy@Sentosa)

For students studying at The Tourism Academy @ Sentosa, the Resource Centre offers a niche collection of resources covering Tourism, Hospitality, Culinary Arts and Resort Management. The Centre is well-equipped with print and e-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 to the world, so as to achieve the 4G outcomes of:

- Inculcating a Global Mindset in our staff and students
- Giving them an enriching Global Experience
- Forming Global Partnerships with industry
- Establishing a strong Global 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 through our Career and Course Advising Office.



Temasek Applied Science School

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Temasek Applied Science School offers eight 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 as well as 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 Certified 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 fields. Here, students learn about ice cream processing, inventory management, Hazard Analysis and Critical Control Point (HACCP), quality control and assurance, logistics and marketing functions as in real business scenarios.

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 nanofiltration/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, filter 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 modification for a variety of applications. It provides staff and students with the opportunity to be directly involved in the emerging field 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, two-dimensional gel analysis, two-dimensional high performance liquid chromatography, gel spot cutting/processing and protein identification (via MALDI) so as to provide the capability to perform the main steps of a proteomics workflow. The facility also has the capabilities for molecular and biochemical analysis of the identified 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 flow 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 identification and classification 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 artificial 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 specific tissue culture laboratory skills, they are also exposed to the process and workflow in a real-life production environment. In this way, they can better appreciate the industrial applications of different laboratory techniques taught in class.



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 armies 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 scientific 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

“ It is obvious that the practical training provided to TP students have well prepared them to adapt quickly with confidence in this fast changing environment. Most importantly, the attitude they take in their work performance show great character and promise for our next generation of professionals.

*Belinda Pang
Regional Sensory & Consumer Insights
Manager, Asia Pacific
Flavour & Fragrance*

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.

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
AFS3001	Food Safety	3	4
AFS3003	Product Development & Marketing	3	5
AMP3001	Major Project	3	8

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ACH2004	Principles of Instrumental Analysis	2	4
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
ANT2007	Catering Technology	2	4
AFS3004	Advanced Food Science	3	4
AFS3005	Food Processing & Packaging	3	5
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 nurture creative professionals trained in scientific culinary skills who will make eating 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, together with a 16-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 on 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

“ 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*

embark on your own business ventures or take up challenges in sales and marketing of food and nutrition-related products and services.

CAREER OPPORTUNITIES

Our graduates are well positioned to join the F&B industry as baking technologists, junior chefs, food product R&D executives or food safety officers.

They can also choose to work in the baking, food service and food consultancy industries as well as in other supporting industries dealing with food ingredients, 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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 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 as well as research and development. Singapore's thrust to be the region's medical hub with world-class healthcare services emphasises the need for quality trained technologists in clinical laboratories and clinical research. This course puts you in demand!

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

“ The student interns on attachment with us were very committed and possessed good working attitude. They were technically competent and worked well with the medical technologists in Raffles Hospital. We would therefore be happy to employ the graduates from this course.

*Seow Ser Hoe
Assistant Laboratory Manager
Raffles Hospital Pte Ltd*

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 diagnosis so that appropriate treatment can be provided.

CAREER OPPORTUNITIES

Our graduates 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

Any two other subjects, excluding CCA -

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

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 90 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
ABM2007	Clinical Chemistry	2	5
ABM2008	Histological Techniques	2	3
ABM2009	Fundamentals of Pathology	2	4
ABM2010	Applied Immunology	2	3
ABM2011	Haematology	2	4
ABT2007	Molecular Genetics	2	5
ABT2013	Molecular Biology	2	4
AMB2004	Medical Microbiology	2	4
APH2006	Basic Pharmacology	2	4
ABM3001	Blood Banking	3	4
ABM3004	Laboratory Management & Quality Assurance	3	4
AMP3004	Major Project	3	8

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
APH3008	Biopharmaceutical Unit Operations	3	4
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 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.

“ We are quite pleased with the graduates we hired from TP. They are intelligent and show good work ethics. In fact, one of the students we hired as a medical technologist co-authored a paper with us!

*Dr Cheah Peh Yean
Senior Scientist, Department of Colorectal Surgery
Singapore General Hospital*

As part of the holistic training provided, you will be given opportunities to cultivate an independent and inquiring mind, as well as learn 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.

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 and 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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

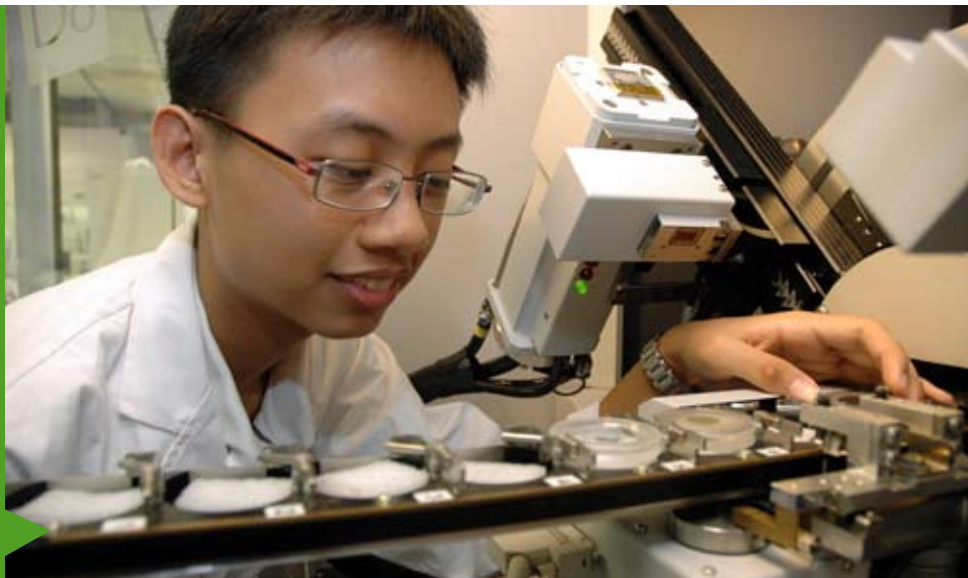
Diploma Subjects - Elective Subjects

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. SHELL and Exxon Mobil have invested heavily in expanding their Singapore operations. 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 benefits of scientific discoveries. They hold crucial responsibilities in the process industry such as running plant operations, designing reactors and process equipment, improving efficiency as well as looking into the safety and environmental aspects of processes.

This course trains you to have an extensive grounding in chemistry and chemical engineering principles for the chemical process industries.

“ Our researchers in organic synthesis lab were impressed with the 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*

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.

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 largest manufacturing industry in Singapore. You can also conduct analytical or research work in laboratories or consider prospects in pharmaceutical manufacturing companies running the production of pharmaceutical products. You may also embark on a career in technical sales or purchasing.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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 scientific 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 conflict 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

“ 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*

flexible learning structure where core subjects are taken together with the Adventure Learning Programme, overseas community projects and cross-disciplinary subjects. This flexibility develops talents and grooms holistic individuals ready to

take on the challenges of a changing Singapore education landscape.

CAREER OPPORTUNITIES

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

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:

www.moe.gov.sg/careers/teach/applying/o-levels/#home-economics

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.

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

www.moe.gov.sg/careers/teach/applying/o-levels/#home-economics

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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.

Pharmaceutical Science

NEW!



Novel drugs and even newer technologies! Join this field that is critical to the discovery and development of new drugs and therapies. Learn the knowledge and skills required to design, analyse, manufacture and market new therapies for cancer and infectious diseases to benefit mankind. Be ready to seize the many career opportunities presented by the ever-growing pharmaceutical industry.

Pharmaceuticals account for 90 percent of the biomedical science industry output for Singapore, contributing \$23 billion in 2007. Biopharmaceutical manufacturing, with total investments worth \$2.1 billion, is poised to be the next leading driver of the industry, promising 1,500 jobs over the next three to five years. Pharmaceutical sales and marketing, regulatory as well as pharmacy practice industries, are also expected to grow, following the provision of enhanced healthcare services and burgeoning medical tourism sector in Singapore.

Our course emphasises learning through established collaborative training with industry 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

“ 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*

human body, the world of bacteria, viruses and other micro-organisms, and the structure, functions and chemical reactions of molecules. You will progress to learn the chemical drug actions, effects and uses. To appreciate fully the full spectrum

of pharmaceutical activities, you will learn how drugs are discovered, manufactured under strict compliance to good manufacturing practices, marketed and dispensed according to prevailing regulatory requirements so as to ensure safety and efficacy for human consumption.

CAREER OPPORTUNITIES

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

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

Any two other subjects, excluding CCA -

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 91 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
ASI3001	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
ACH1004	Organic Chemistry 2	1	4
ABM2009	Fundamentals of Pathology	2	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
APH2006	Basic Pharmacology	2	4
APH3002	Current Good Manufacturing Practices	3	3
APH3004	Pharmaceutical Manufacturing Technology	3	4
APH3007	Pharmaceutical Analysis	3	5
AMP3004	Major Project	3	8

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
APH3008	Biopharmaceutical Unit Operations	3	4
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.

Veterinary Technology



Singapore's affluence as a society has led 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 responsible and humane animal 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 definitely 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 scientific 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

“ 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*

in preparation for biomedical research is also emphasised in this course. Technical competency is further honed through a five-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.

CAREER OPPORTUNITIES

Our graduates can work in either biomedical research or veterinary industries. You may be employed as a veterinary technologist in veterinary clinics/hospitals, or as an animal education officer/assistant, animal health inspection assistant or technical support officer in animal welfare organisations, Agri-Food and Veterinary Authority of Singapore, animal quarantine centres and pet shops. You 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/scientific equipment.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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 is 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, vegetable 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 flour derived from milling, the tests used to evaluate the quality of flour, 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 and 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 proficiently supervise a food service 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 financial 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 sanitising, 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 significance in biological systems. It aims to provide an overview of metabolism and emphasises the relationship between anabolism and catabolism, and their role in maintaining life.

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 specific 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 fixation, decalcification, 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 field of biotechnology. Topics covered include sample pre-treatment, separation techniques, spectrometry, chromatography, and the use of fluorochromes and radioisotopes in biochemical analysis.

ABT2007 MOLECULAR GENETICS

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

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, eukaryotic viruses, genetics and cancer.

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 significance to veterinary and laboratory animal science.

ACE1001 MASS & ENERGY BALANCE

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

ACE1002 THERMODYNAMICS

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

ACE2002 ENVIRONMENTAL TECHNOLOGY

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

ACE2003 INDUSTRIAL CHEMICAL PROCESSES

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

ACE2006 PHARMACEUTICAL UNIT OPERATIONS

This subject emphasises the application of engineering principles in the unit operations commonly employed in the upstream, pharmaceutical industry. Topics covered include reagent handling, dissolution, extraction, distillation, crystallisation, filtration and drying. 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 non-newtonian flows, basic equations, fluid flow in pipes and fittings as well as fluidisation and filtration. It also covers the principles and operations of pumps, compressors and their performances. Practicals will be included to enhance understanding.

ACE2008 UNIT OPERATIONS 2

This subject investigates the fundamental scientific principles and techniques in chemical engineering. Selected unit operations which involve diffusion and gas-liquid mass transfer (absorption and humidification), gas-liquid mass transfer (batch and continuous distillation) and liquid-liquid mass transfer (extraction) 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 fire and explosion, housekeeping and material handling, personal protection equipment and legislation concerning occupational safety and health.

ACE2010 PROCESS CONTROL & INSTRUMENTATION

This subject covers the basic concepts and principles of process control and instrumentation in chemical process industries. Current journals 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 scientific principles behind the kinetics of chemical reactions and techniques which are the basic principles of chemical engineering. Further studies into the characteristics of batch reactors, mixed-flow reactors and plug-flow reactors will be carried out. Differences in the behaviour of ideal and non-ideal reactors 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 configurations, membrane fouling and control, and advanced membrane processes such as diffusion dialysis, electrodialysis and continuous deionisation, etc.

ACE3006 PETROCHEMICAL TECHNOLOGY

This subject covers the production of petrochemicals from various sources, the basic chemistry of petrochemicals, their usefulness and applications. You will also learn about raw materials and their building blocks and the various processes and unit operations involved in the production of petrochemicals.

ACE3010 MATERIALS & NANOTECHNOLOGY

This subject provides 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 significance to biological science. Topics covered 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 classification of organic compounds, structure and properties of alkanes, alkenes, alcohols, aldehydes and ketones, carboxylic acids, amines and stereochemistry. Emphasis will be on the applications of organic compounds and their derivatives, and their impact on the chemical related industries.

ACH1004 ORGANIC CHEMISTRY 2

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

AEW3003 ENVIRONMENTAL MANAGEMENT SYSTEM

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

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 emulsifiers, stabilizers, sweeteners, flavourings, 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.

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 modified 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.

AFS3005 FOOD PROCESSING & PACKAGING

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

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 influences on consumer behaviour will be emphasised. The subject incorporates decision-making skills for effective purchase decisions and creates an awareness of the tactics and strategies used by sellers. It also cultivates 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 covers 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 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 is on probability and statistics, measures of central tendency, events and probabilities, and probability distributions. This subject also covers 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 also provides 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, prokaryotes and eukaryotes, 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 fields of food, industry, medicine and environment.

AMB2003 PHARMACEUTICAL MICROBIOLOGY

This subject covers the significance of microorganisms 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 classification 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 builds 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 financial 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 are 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 is 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 also provides 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 also covers 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 finished products, basic concepts of bioprocess engineering, process control and instrumentation, bioreactor designs for culturing microorganisms, animal cells and plant cells.

APH3006 GOOD DISPENSING PRACTICE & PHARMACOTHERAPY

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

APH3007 PHARMACEUTICAL ANALYSIS

This subject 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 modification and development will be taught in relevance to manufacturing, process optimisation and current good manufacturing practice.

APH3008 BIOPHARMACEUTICAL UNIT OPERATIONS

This subject provides you with an overview of the biopharmaceutical processing, with emphasis on the unique separation and purification processes applied in the biopharmaceutical industry. Examples of such unit operations include chromatography, membrane chromatography and cross flow filtration. Consideration is also given to both analytical and process validation issues that are critical to successful manufacturing.

**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/
PHARMACEUTICAL SCIENCE/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 16-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 microbiology, radiology, histology and cytology in relation to veterinary applications.

AVT2002 CLINICAL DIAGNOSTICS 2

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

**AVT2003 LABORATORY SAFETY &
MANAGEMENT**

This subject covers basic principles and techniques of laboratory safety, and management as well as quality assurance, risk assessment and management.

**AVT2004 VETERINARY PRACTICE
MANAGEMENT**

This subject covers 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 specific animals, in the areas of housing, environmental factors, nutrition, reproduction, breed identification, first aid and wound management and animal behaviour. Animals covered would include birds, fish, 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 significance to veterinary technicians. The subject introduces you to pathogenic agents, their modes of action, and the observed symptoms as well as basic epidemiology and veterinary microbiology.

**BMK3007 PRINCIPLES OF
ENTREPRENEURSHIP**

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

BMK3012 SALES MANAGEMENT

Selling forms an integral part of the “promotion” component of the marketing mix. This subject provides 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 field of retailing with particular emphasis on topics ranging from an introduction to basic retailing principles and practices, building and sustaining relationships in retailing to the key elements in the retail marketing mix.

BRM2006 STORE MANAGEMENT

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

DAS1107 APPAREL DESIGN FUNDAMENTALS

The subject explores the three basic elements of design: line, colour and texture, and the design principles specific to apparel and accessory items. It will examine their effects on personal appearances as well as their influences 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 (Extrapersonal 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.

In the electronic domain, the School has its "Virtual Business School" or VBUS, where e-learning is an integral part of student learning. Using personal computers or mobile digital devices, students can access VBUS at home or in the campus, thus making learning interactive and collaborative.

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

ACCOUNTING & FINANCE REUTERS LAB

Students can explore the exciting financial 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 finance 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 staffing corporation, Kelly Services (a Fortune 500 company and listed on NASDAQ). It gives students hands-on training in international recruiting and staffing practices.

TELEVISION STUDIO

This 200 square metre 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 offline 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, Pastry and Bakery, 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 filing and information retrieval systems used in the courts and the legal profession.

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 office training facility set up with the intention of exposing final-year students to the full workflow involved in running a legal matter. It is used to train students in the day to day running of a typical law firm, from the moment a client brings in a new matter to the time the case is closed and the client billed.

RADIO STUDIO

This studio provides students with practical training in using industry-standard equipment. The radio facility comprises a training studio, an on-air studio and several production suites. Students also “broadcast” live 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 Finance offers you wide career and further study options. Our broad-based

training aims to instil confidence and equip you with both technical and soft skills for the dynamic accounting and finance sectors. How do we achieve this? Through an industry-relevant curriculum, current teaching methods, 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 financial databases and state-of-the-art research tools widely used in the industry. There would be opportunities for overseas exposure through study trips and internship programmes.

Furthermore, you will be able to choose your preferred Accounting/Audit/Tax, Banking or Investment specialisation and take cross-disciplinary subjects to pursue interests beyond your diploma.

“ 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
Partner, CPA Firm
Foo Kon Tan Grant Thornton*

The combination of Accounting and Finance subjects that you will study begins in the first year to lay a strong foundation for more advanced subjects. In addition, a key focus in the first year is to provide a solid grounding in general business and management disciplines such as economics,

management, statistics and information technology.

The second and final years build on industry knowledge and skills through subjects such as Finance, International Finance, Investment, Management Accounting, Taxation, Corporate Reporting, Audit, and Financial Analysis. In the final year, you will select four electives from a range of Accounting/Audit/Tax, Banking and Investment subjects to fit your preferred career path.

Your knowledge and skills will also be put into practice in the industry through a 14-week Student Internship Programme.

CAREER OPPORTUNITIES

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

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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Literature in English/Chinese/Malay/Tamil, Music, or Principles of Accounts.

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
BSI3011	Student Internship Programme	3	10

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BAF1003	Financial Accounting 1	1	4
BAF1004	Financial Accounting 2	1	4
BBS1001	Principles of Management	1	4
BBS1002	Organisational Behaviour	1	4
BBT1007	Business Office Applications	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BHT1018	Etiquette of Business & Service Knowledge	1	1
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
BAF2018	Fundamentals of Taxation	2	4
BAF2019	Corporate Reporting & Audit	2	4
BLM2005	Legal Aspects of Business	2	4
BAF3008	Financial Analysis	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Accounting/Audit/Tax Elective Cluster			
BAF3014	Practice of Taxation	3	4
BAF3019	Advanced Accounting	3	4
BAF3020	Audit Practice	3	4
Banking Elective Cluster			
BAF3006	Consumer Banking	3	4
BAF3007	Credit Administration & Control	3	4
BAF3013	Personal Financial Planning	3	4
Investment Elective Cluster			
BAF3003	Bank Treasury Management	3	4
BAF3013	Personal Financial Planning	3	4
BAF3016	Security Analysis & Portfolio Management	3	4
Diploma Free Elective Cluster			
BLO1002	Business Calculus	1	4
BAF3009	Financial Institutions & Markets	3	4
BAF3019	Advanced Accounting	3	4
BLM3009	Company Law for Business	3	4

CROSS-DISCIPLINARY SUBJECTS

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

Business Studies Grouping

(Business/Logistics
& Operations
Management/
Marketing)



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

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 a 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 the 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 course provides graduates with a strong foundation of business and management concepts, covering core business-related disciplines. Subjects covered include Management, Business Accounting, Economics, Business Statistics, Marketing, Computing, Human Resource Management, Finance, Managerial Accounting, Entrepreneurship, International Business, Communication, and Law.

“ The Business graduates from the Temasek Business School are highly competent and adaptable; and given the training they have received, I am confident that they are geared for success in the business world of today and tomorrow.

*Dhirendra Shantilal
Senior Vice President, Asia Pacific
Kelly Services*

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.

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. By the end of the course, you are expected to possess relevant business knowledge and skills, be well-versed in IT, and possess good interpersonal skills.

Our graduates enjoy a wide choice of employment positions in a wide range of industries in the public or private sectors. You can take on jobs in business, banking, finance 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 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

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
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
BL01002	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 (iN2015) 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 \$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 financials and supply chains.

“SAP is very proud to be supporting the curriculum of this course as it focuses on equipping students with the right mix of business and IT skills. By incorporating leading business software solutions such as SAP's Enterprise Resource Planning System into its curriculum, the course's role in bringing together industry and academia is key to nurturing future technologists for the Infocomm industry.

Eric MacDonald
President
SAP South East Asia

In your Senior year, you have a choice to further specialise in areas such as Enterprise Applications, Business Intelligence, Outsourcing Management

and Business Strategies in IT. Business Information System Security & Audit is also a significant 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.

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, financials, trading, logistics and manufacturing. Armed with both business acumen as well as a technological mindset, you can start your career as a business analyst, data miner, ERP/CRM analyst, pre-sales analyst, project coordinator, account executive, marketing executive and more.

You will also have the opportunity to become a well-recognised business IT consultant by acquiring professional certifications such as the SAP BPERP (Integrated Business Processes in mySAP ERP Based on SAP Best Practices) certification awarded by the SAP University Alliance Programme in the course of your study.

APPLICATION

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

international students, please refer to the section on “Information for International Students”.

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

Note: Applicants with complete/full Colour Appreciation Deficiency are not eligible to apply. Applicants with partial Colour Appreciation Deficiency may apply.

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
BBT1005	Computer Technology & Office Systems	1	5
BBT1006	E-Business Management	1	4
BEC1001	Microeconomics	1	4
BEC1002	Macroeconomics	1	4
BLO1001	Business Statistics	1	4
BMK1001	Basics of Entrepreneurship	1	1
CFI1C04	System Analysis	1	4
CID1C02	Web Design	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 be effective 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

“ 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 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*

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 specialisations – Print, Broadcast or Media Marketing.

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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

English Language (EL1)*	Grades 1-3
Mathematics (E or A)	Grades 1-7
Any one of the following subjects: Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Literature in English/Chinese/Malay/Tamil, or Principles of Accounts.	Grades 1-6
Any two other subjects, excluding CCA	Grades 1-6

**SPM/UEC holders must have a minimum of grade 3 for the Bahasa Inggeris (English Language) subject.*

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

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 flourish, 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, wine and beverage, basic business skills and develop an understanding of the culinary and catering industries. The course also covers more advanced areas of study such as revenue management and marketing for the restaurant and catering industries. Your culinary and service skills will be honed through hands-on practice and

“ During the Dream Team Competition held at Food and Hotel Asia in April 2008, the participating students demonstrated amazing qualities in both their floor and kitchen work. Their attitude and potential were impressive and it would be exciting to follow their career development in our industry upon their graduation.

*Emmanuel Stroobant
Chef and Owner
Saint Pierre, The Restaurant*

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

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 hotels 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.

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

APPLICATION

Apply during the Joint Admissions Exercise following the release of the GCE O Level results, as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. For other categories of local applicants, please refer to the section on "Admission and Requirements". For international students, please refer to the section on "Information for International Students".

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music, or Principles of Accounts.

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 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

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 future is bright for our students as the Singapore Tourism Board estimates that 10,000 jobs will be available in these industries in 2009.

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.

“ TP has been a valued contributor of skilled tourism professionals to the Singapore workforce since 1991. The Singapore Tourism Board is confident that it will continue to attract high-calibre students and help the industry meet the rising demand for skilled tourism manpower in Singapore.

*Aw Kah Peng
Chief Executive
Singapore Tourism Board*

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 finer points of global citizenship and cross-cultural communication skills.

CAREER OPPORTUNITIES

Having been groomed for junior executive positions, you can choose to work in virtually any service sector. Many of our graduates find employment with 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.

APPLICATION

Apply during the Joint Admissions Exercise following the release of the GCE O Level results, as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

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

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

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
BL01002	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 office 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 (PBL) 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 the option of choosing two diploma electives.

Where suitable, substantive law subjects will be taught using the PBL approach, involving at times

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

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

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 Office & Court Technology taught in the Senior year will reinforce much of the management and legal issues learnt over the previous two years.

CAREER OPPORTUNITIES

Graduates are well-placed to find employment as office administrators and paralegals in 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 qualification into their LLB programmes. In addition, many overseas universities also accord our graduates advanced standing towards various non-law degree courses.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

**SPM/UEC holders must have a minimum of grade 4 for the Bahasa Inggeris (English Language) subject.*

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BCS1003	Legal Communication Skills 1	1	5
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
BLM2002	Criminal Procedure	2	4
BLM2003	Family Law	2	4
BLM2004	Law of Contract	2	4
BLM3005	Company Law	2	4
BAF3004	Company & Partnership Accounts	3	3
BLM3003	Civil Procedure	3	6
BLM3006	Corporate Governance & Compliance	3	3
BLM3008	Intellectual Property	3	4
BLM3011	Management of Law Office & Court Technology	3	5
BLM3013	Trusts, Wills & Probate	3	3

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

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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



The resort and other related leisure businesses will contribute significantly to the success of the remaking of Singapore into a Leisure Island. 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 provide 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 locally or overseas, in some of the best known resorts and leisure businesses in the world. 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 have the opportunity 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

“ Temasek Polytechnic's Diploma in Leisure & Resort Management course has always been synonymous with producing talents for the hospitality industry, equipping them with the relevant skills and knowledge to excel. We are confident that its industrial attachment programme provides the students valuable insights into the demands of this dynamic industry.

*Seah-Khoo Ee Boon
Director, Human Resources and Training
Resorts World at Sentosa Pte Ltd*

professionally in a business environment. In addition, you will have a choice of elective subjects designed to broaden your knowledge of the tourism industry such as Introduction to Gaming Operations

and E-business in Hospitality & Tourism. The course is also focused on honing your creative thinking and problem-solving skills through active engagement in forums and presentations.

CAREER OPPORTUNITIES

You will be prepared for a wide range of career options and readily find 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.

APPLICATION

Apply during the Joint Admissions Exercise following the release of the GCE O Level results as well as directly through the Joint Polytechnic Special Admissions Exercise (JPSAE). Students who are shortlisted through the JPSAE will be required to undergo an interview. For other categories of local applicants, please refer to the section on “Admission and Requirements”. For international students, please refer to the section on “Information for International Students”.

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

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

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

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

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

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

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

“ With more than 200 stores islandwide, NTUC FairPrice depends on an efficient logistics chain to ensure fresh, quality products are delivered in time to our stores to meet the needs of 1.5 million shoppers every week. Efficient logistics and good supply chain management is integral to many businesses. Logisticians, such as those trained by TP, have an important role to play especially in the retail industry where timely delivery of the right product to the right place is a critical success factor.

Dickson Yeo
Director, Supply Chain
NTUC FairPrice

Programme as well as undertake a major industry-based project.

The course emphasises a practical approach that provides you with a good foundation in business studies together with an in-depth knowledge of logistics. You will also develop team-building, problem-solving and human relations skills.

CAREER OPPORTUNITIES

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

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

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

GRADUATION REQUIREMENTS

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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 field.

The Freshman-year curriculum is oriented towards a fundamental understanding of the business environment and teaches basic business skills and concepts. In your Junior year, the curriculum focuses on the development of functional competencies in areas such as marketing research, consumer behaviour, 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.

“ 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

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.

CAREER OPPORTUNITIES

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

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 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

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
BRM1002	Principles of Retail Management	1	4
BRM1005	Marketing Fundamentals	1	4
BMK2001	Advertising & Promotion	2	4
BMK2002	Consumer Behaviour	2	4
BMK2003	Customer Relationship Management	2	4
BMK2004	Financial Aspects of Marketing	2	4
BMK2005	Marketing Research	2	4
BMK2007	Internet Marketing	2	4
BMK2014	Creative Campaign Project	2	4
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

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 field of retailing.

In your Freshman year, training will focus on providing a strong business foundation and building your awareness of the nature and demands of the retail industry. In your Junior and Senior years, analytical and specialised subjects on the various aspects of retail management are offered. There is a strong emphasis on active learning and practical hands-on training in this course. You will be exposed to up-to-date computer-based learning materials and methodologies and software application packages currently used in the retail industry. Highly specialised skills will be acquired through subjects such as Merchandise Buying,

“ 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*

Retail Visual Merchandising, Mall Management, International Marketing & Retailing and Retail Informatics.

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

CAREER OPPORTUNITIES

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

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce/Commercial Studies, Economics, Geography, Higher Art, Higher Music, History, Literature in English/Chinese/Malay/Tamil, Music or Principles of Accounts.

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 20 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 128 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
BMK3002	Entrepreneurship	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

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
BLO1002	Business Calculus	1	4
BRM3006	Retail Promotion & Branding	3	4

CROSS-DISCIPLINARY SUBJECTS

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

Subject Synopses

BAF1001 BUSINESS ACCOUNTING 1

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

BAF1002 BUSINESS ACCOUNTING 2

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

BAF1003 FINANCIAL ACCOUNTING 1

This subject equips you with the principles of accounting, the analysis and recording of business transactions using the double entry system, the accounting process and accounting cycle for businesses. You will learn how to prepare financial statements within the framework of accounting assumptions and principles.

BAF1004 FINANCIAL ACCOUNTING 2

This subject builds on the foundation laid in Financial Accounting 1. It focuses on business profit determination under the accrual accounting system, the accounting system used to account for and control various business assets namely noncurrent 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 profit and loss statement of the company. It also provides a basic understanding of the sources and allocation of funds within a business enterprise, and an appreciation of some of the financial tools and techniques used by the financial manager in the management of funds and other financial resources.

BAF2001 ACCOUNTING FOR HOSPITALITY & TOURISM

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

BAF2002 BUSINESS FINANCE

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

BAF2003 COMPUTERISED ACCOUNTING SYSTEM

This subject prepares you to be a competent and effective user of a computer-based accounting information system. Areas covered include transaction flow and information processing in an accounting system, controls in accounting systems, and concepts of data flow 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 include elements of costing, activity-based costing and activity-based management, absorption and variable costing, and cost-volume-profit analysis.

BAF2005 COST & MANAGEMENT ACCOUNTING 2

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

BAF2006 FUNDAMENTALS OF INVESTMENT

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

BAF2007 INTERNATIONAL FINANCE

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

BAF2009 MANAGEMENT ACCOUNTING & FINANCE FOR HOSPITALITY & TOURISM

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

BAF2011 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 financial accounts of partnerships and companies.

BAF2012 INTRODUCTION TO BUSINESS FINANCE

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

BAF2016 MANAGEMENT ACCOUNTING & FINANCE

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

BAF2018 FUNDAMENTALS OF TAXATION

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

BAF2019 CORPORATE REPORTING & AUDIT

This subject introduces you to the financial reporting framework in Singapore and provides you with the basic skills in preparing and presenting group (consolidated) financial 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.

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 financial services are marketed.

BAF3007 CREDIT ADMINISTRATION & CONTROL

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

BAF3008 FINANCIAL ANALYSIS

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

BAF3009 FINANCIAL INSTITUTIONS & MARKETS

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

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-profit analysis.

BAF3012 MANAGERIAL ACCOUNTING 2

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

BAF3013 PERSONAL FINANCIAL PLANNING

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

BAF3014 PRACTICE OF TAXATION

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

BAF3016 SECURITY ANALYSIS & PORTFOLIO MANAGEMENT

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

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 financial 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 firms 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 your personal, interpersonal and group interaction skills.

BBS2001 HUMAN RESOURCE MANAGEMENT

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

BBS2002 RECRUITMENT & HUMAN RESOURCE ADMINISTRATION

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

BBS2003 MANAGEMENT OF EMPLOYEE RELATIONS

This subject exposes you to labour laws, the industrial relations framework of organisations and how to manage employee relations. You will also be introduced to a range of employee relations 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 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.

BBS2008 FRANCHISING BUSINESS

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

BBS2009 MANAGING SMALL & MEDIUM ENTERPRISES

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

BBS3001 HUMAN RESOURCE DEVELOPMENT

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

BBS3002 PERFORMANCE & COMPENSATION MANAGEMENT

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

BBS3003 CORPORATE EVENTS MANAGEMENT

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

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. Theory 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.

BBT1003 BUSINESS COMPUTING SKILLS

This subject is application-based and covers advanced features in office 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 organisations. Theory will be complemented with laboratory sessions, aimed to expose students to office productivity tools and to equip them with basic technical support skills.

BBT1006 E-BUSINESS MANAGEMENT

This subject exposes you to the different types of e-commerce/e-business models, namely Business-to-Business and Business-to-Consumer. You will learn about Internet marketing, retailing and customer relationship management. As part of identifying e-commerce/business strategy and implementation, the subject will expose you to business process re-engineering.

BBT1007 - BUSINESS OFFICE APPLICATIONS

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

BBT2002 OPEN TECHNOLOGY & BUSINESS SYSTEMS

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

BBT2003 DATA MINING

This subject equips students with the knowledge and skills of data mining for the purpose of helping companies understand their customers better and enhance their competitiveness. It aims to develop in students an understanding of the knowledge discovery process and an awareness of the structure of data warehouses. The subject enables students to use various data mining techniques to discover patterns in data to explain current behaviour or to predict future outcomes. Students will use a 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

Enterprise Resource Management 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. Students will get to see how data sharing in real time throughout a company's functional areas increases the efficiency of operations and helps managers make better decisions. With the advent of the Internet, greater attention is now focused on extending the ERP to the Internet for e-commerce applications. Students will understand the value of ERP systems to supply chain management and business intelligence. A popular ERP software will be used for hands-on exercises.

BBT3005 BUSINESS INFORMATION SYSTEM SECURITY & AUDIT

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

BBT3006 BUSINESS STRATEGIES IN INFORMATION TECHNOLOGY

This subject seeks to reinforce and consolidate the knowledge students have acquired in common business modules by applying them in the context of technology products and IT service companies. Students will be taught sales force management, marketing, business development and other related strategies in IT companies. Students will also learn the various stages of entrepreneurship, start-up financing, and strategies for start-up and growth. Through case studies and role plays, students 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 aims to provide students with an understanding of the basic concepts of outsourcing, the trends of outsourcing, the processes involved, and the business advantages that can be obtained. Organisations may seek benefits beyond cost cutting, such as service improvements and radical transformation, although this carries with it associated risks and challenges. Students will learn about risk management in a rapidly changing business and IT landscape. This subject will cover both operational issues and strategic risks of IT outsourcing and multi-sourcing.

BBT3008 BUSINESS INTELLIGENCE

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

BBT3009 ENTERPRISE APPLICATIONS

This subject aims to equip students with the knowledge to successfully plan, design and implement enterprise applications. Students will understand the success of enterprise applications depends upon effective management, organisational change and the use of advanced technology. Students will be kept abreast on how enterprise system vendors quickly adapt their systems to take advantage of the latest technologies like open systems, client/server technology, Internet/Intranet, and e-commerce. Students will 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, classification, characteristics, storage, quality criteria, usage and nutrition will also be covered. You will also be introduced to wine and other alcoholic and non-alcoholic beverages from a food-harmony perspective. To encourage a thirst for knowledge and 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, fortified and aromatised beverages, distilled beverages, compound beverages, mixed beverages and all major wine regions and their wines. You will also be able to appreciate the concepts of responsible service of alcohol, the effects of alcohol on the human body and mind, 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 flow 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 influences and future trends in the industry will be discussed in the context of how they affect the business today. The steps to opening a restaurant will be covered. These include location selection, interior design and menu planning, as well as day to day operational concerns such as hygiene and sanitation, marketing, staff scheduling, motivation and management, service styles, customer service issues, profit and loss statements and technological innovations. Current legal, human resource and licensing issues will also be discussed.

BCC2004 CULINARY PRACTICUM

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

BCC3002 CATERING MANAGEMENT

This subject focuses on the managerial aspects of food and beverage operations. It requires you to apply your learning from the subject Food & Beverage Operations. The subject culminates in a restaurant concept proposal and covers aspects such as manpower planning, menu and wine list development, food and beverage costs control, 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, profitable menu planning, restaurant floor plans, equipment layout and planning, human resource deployment and training, low cost internal marketing ideas, customer care and building sales, and technological innovations. Legislation and various licenses governing food and beverage operations will also be covered. The subject will challenge you to review ways of raising operational efficiency of food and beverage business set-ups.

BCC3005 MARKETING FOR RESTAURANT & CATERING

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

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, the Ps of marketing and integrated marketing communication.

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, fieldwork, research and interview techniques.

BCM1005 JOURNALISM 2: FEATURE WRITING

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

BCM1006 MEDIA & SOCIETY

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

BCM1007 MEDIA MANAGEMENT PRINCIPLES

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

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 covers 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 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 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 also explores basic translation techniques.

BCM2005 CROSS-CULTURAL COMMUNICATION

This subject covers topics such as cultural imperialism, social and cultural identities and structures and barriers within and between cultures in communication. It also investigates issues on migrant-host relationships, foreign talent, and intercultural conflicts.

BCM2006 FILM THEORY & CRITICISM

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

BCM2007 INTRODUCTION TO AUDIO PRODUCTION

This is an introductory subject to audio production. You will learn the essential writing, listening and technical skills required to produce programmes for radio. You will also learn the various tools of the trade and how to operate each effectively. As part of the 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 and Final Cut Pro. The subject also provides 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 also focuses on research and writing for radio, particularly in relation to planning of interviews and radio documentaries.

BCM2011 SINGLE CAMERA PRODUCTION

You will learn the concepts and processes in single camera production and will be taught the various stages of production. As part of the subject, you will learn camera operations, filming techniques, indoor/outdoor lighting techniques, basic scripting, directing and 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 specific 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 examines 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 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 finding the right angle to fit 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 profits.

BCS1001 COMMUNICATION SKILLS 1

This subject provides you with competencies in both oral and written communication. You will be taught 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 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, inflation, and monetary and fiscal 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.

BHT1018 ETIQUETTE OF BUSINESS & SERVICE KNOWLEDGE

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

BHT2003 CLUB & RESORT BUSINESS

This subject goes through the various definitions and classifications of club and resort business, resort planning and development, as well as operations and marketing of clubs and resorts. It gives you an appreciation of the operational challenges 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

This subject gives you first-hand experience in operating a range of F&B outlets in their respective service styles. In the process, you will learn not only the technical skills required to provide efficient and competent service, but also how to provide elegant and gracious service to guests. This will be carried out with a focus on the mastery of basic technical skills such as wine service, order-taking and table setting. Maximising guest satisfaction through effective communication, attention to detail, creative and critical thinking skills will also be taught. The value of leadership and teamwork in running a successful food and beverage enterprise will be emphasised.

BHT2010 SPECIAL INTEREST TOURISM

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

BHT2012 TRAVEL & LEISURE BUSINESS

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

BHT2014 PRINCIPLES OF MARKETING FOR HOSPITALITY & TOURISM

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

BHT2015 TICKETING & RESERVATIONS

The subject looks at 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 and 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 identifies the exact nature and timing of specific 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, specific 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 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 field 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 covers the entire process of administering criminal justice and criminal litigation as provided for in the Criminal Procedure Code and portions of the Evidence Act, and trains you to assist a criminal lawyer effectively.

BLM2003 FAMILY LAW

This subject introduces the law relating to the family in Singapore. Topics covered include marriage, divorce, the maintenance of wife and children, 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 also covers 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 also covers 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 also covers 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 also covers the substantive legal principles underlying civil procedures and includes hands-on training in the drafting of court documents.

BLM3004 COMMERCIAL TRANSACTIONS

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

BLM3005 COMPANY LAW

This subject provides 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 finance, winding up and judicial management of companies.

BLM3006 CORPORATE GOVERNANCE & COMPLIANCE

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

BLM3007 INSURANCE LAW & PRACTICE

This subject provides 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 confidential 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 financing 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 office including managing human resources, the office environment, work flow management, office automation, records and document management, logistical support, electronic filing 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 also addresses 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.

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

BLO2002 LOGISTICS & SUPPLY CHAIN MANAGEMENT

This subject covers the macro aspects of business logistics and supply chain management. It emphasises the integration of logistics with other functions of business and the contribution of logistics to the economy. It also examines other trends such as outsourcing and third party logistics (3PL). You will be given hands-on experience 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 efficiency 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 covers 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 field 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 includes the role of distribution in the total logistics process, the planning process for efficient 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 flow of materials to achieve shorter lead time and faster turnaround for finished goods to reach customers. It also equips you with knowledge of inventory management and control. You will be taught the application of IT in materials management.

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 also includes 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 focuses 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 the 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 the 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, conduct feasibility studies, quantify the benefits of the improvements and implement various improvement processes.

BLO3011 BIO-CHEMICAL LOGISTICS

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

BLO3012 LOGISTICS SERVICE MANAGEMENT

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

BLO3013 ADVANCED SUPPLY CHAIN MANAGEMENT

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

BLO3014 SUPPLY CHAIN SIMULATION & MODELLING

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 the 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 financing or payment method in order to minimize 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 Economic Development Board 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 focuses on the significance of freight transport in the global setting and freight as part of the production and distribution systems. Topics related to freight tariff systems, costing, operational flows, customs documentation and clearance procedure give you a good understanding of the practices in the industry. You will also be taught the best practices and performance measurements used in the industry. Strategies to increase the efficiency of freight and to encourage more efficient freight delivery will also be discussed.

BLO3017 COLD CHAIN MANAGEMENT

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

BLR2001 INTRODUCTION TO LEISURE & RECREATION

This subject provides an overview of the leisure and recreation industry in Singapore and throughout the world. It covers the 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 social-political environments. 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 forms 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 influence and impact upon culture and society. The key areas include heritage and culture as tourism products, the development of identity and place, cultural tourism, and the impact of societal trends on the tourism industry.

BLR2006 LEISURE & RESORT FACILITIES MANAGEMENT

This subject emphasises managerial responsibilities for efficiency 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 leisure industry. To achieve this, you will be introduced to knowledge involved in the planning, development, programming and production of medium and large scale events. Key topics such as the type, importance of events for the leisure and tourism sectors, marketing, human resource management, and budgeting and staging will be examined.

BLR3002 RESORT OPERATIONS & MANAGEMENT

This subject gives you an understanding of the resort industry by first covering the historical development of resorts. This enables 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, financial management, marketing, events planning, recreation, sport and fitness facilities management. The subject emphasises the development of technical and conceptual skills for successful club management.

BLR3005 CRUISE BUSINESS

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

BLR3008 SPA & WELLNESS MANAGEMENT

This subject provides a comprehensive overview of the operations and management of spa and wellness businesses. As a starting point it will examine the different types of spa and wellness organisations and proceed to examine key areas in 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 helps to develop your entrepreneurial mindset.

BMK2001 ADVERTISING & PROMOTION

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

BMK2002 CONSUMER BEHAVIOUR

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

BMK2003 CUSTOMER RELATIONSHIP MANAGEMENT

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

BMK2004 FINANCIAL ASPECTS OF MARKETING

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

BMK2005 MARKETING RESEARCH

This subject provides 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.

BMK2014 CREATIVE CAMPAIGN PROJECT

This subject seeks to provide students with an understanding of the creative process and practical issues in marketing campaigns. Students learn to generate effective communication messages and creative strategies and explore different techniques in visual communication. They also learn the essentials of client and campaign management and get an overview of socially responsible communication and practices.

BMK3002 ENTREPRENEURSHIP

This subject gives you an opportunity to conduct field 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 difficulties 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 reflect the increasing importance in these key areas. The impact of rapid advances in technology on globalisation and implications for marketing will also be covered. You will develop core skills in preparing and presenting practical marketing plans.

BMK3005 INTERNATIONAL BUSINESS

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

BMK3006 PRACTICE OF ENTREPRENEURSHIP

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

BMK3007 PRINCIPLES OF ENTREPRENEURSHIP

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

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, profitable brand relationships.

BMP3003 MAJOR PROJECT (BUSINESS INFORMATION TECHNOLOGY)

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

BMP3007 MAJOR PROJECT (LOGISTICS & OPERATIONS MANAGEMENT)

This subject provides you with an opportunity to understand real-life problems in companies. The integration of the various fields of logistics requires you to apply the knowledge learnt 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, classified and reported and the underlying accounting principles that govern the techniques employed.

BRM1002 PRINCIPLES OF RETAIL MANAGEMENT

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

BRM1003 RETAIL ACCOUNTING 2

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

BRM1005 MARKETING FUNDAMENTALS

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

BRM2002 RETAIL VISUAL MERCHANDISING

This subject equips you with the skills and abilities to help retail operations visually differentiate themselves. The focus is 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 finance and accounting fundamentals that includes financial techniques and concepts that are important to the retailing industry. You will learn the various financial aspects of retailing such as the analysis of financial statements, merchandise budgeting and capital investment decisions.

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 fixtures, 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 reflect 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 profit for your businesses.

BSI3011 STUDENT INTERNSHIP PROGRAMME (ACCOUNTING & FINANCE)

This 14-week internship links your learning with the real world. You will be placed in relevant industrial/commercial organisations so that you can bring your classroom knowledge into the working world and apply them in actual work situations. Besides reinforcing technical concepts and skills in accounting and finance, this practical training also provides the opportunity to build important soft skills such as problem solving, communication and teamwork.

BSI3002 STUDENT INTERNSHIP PROGRAMME (BUSINESS)

This 12-week internship links your learning with the real world. You will be placed in relevant industrial/commercial organisations so that you can relate what you have learnt in the classrooms with actual work situations. This practical training provides you with the opportunity to apply the concepts and skills acquired through specific jobs.

BSI3003 STUDENT INTERNSHIP PROGRAMME (BUSINESS INFORMATION TECHNOLOGY)

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

BSI3004 STUDENT INTERNSHIP PROGRAMME (COMMUNICATIONS & MEDIA MANAGEMENT)

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

BSI3006 STUDENT INTERNSHIP PROGRAMME (LAW & MANAGEMENT)

This 12-week internship links your learning with the real world. You will be placed in law firms, the courts or legal departments of private and public organisations, so that you can 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 specific 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 first-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

The subject introduces you to the characteristics, developments and impact of Internet and multimedia technologies so that you are familiar with the principles, working knowledge and skills that are fundamental to developing Internet and multimedia applications. It 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 definition, 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 definition of user requirements and to design an appropriate information system from the requirement specifications, using appropriate methods, tools and techniques.

CIM1Z01 DATABASE INFORMATION SYSTEMS

This subject introduces you to the fundamental concepts of relational database systems and the techniques of designing relational databases. It also equips 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 (Extrapersonal 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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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 challenging career in an industry driven by briefs and deadlines. It is not all studio and classroom work. Design is global in nature and so your learning experiences will reflect that. You will participate in industry driven dialogue, seminars and workshops, go on field 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. 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.

>60 DESIGN CENTRE

This is Singapore's first think-tank for design issues that will impact the growing elderly population. The centre generates ideas and solutions that are not only user-friendly but also life-impactful in the areas of habitat, healthcare,

communications, mobility, fashion and lifestyle for the elderly. The >60 Design Centre taps on the synergies created by its partnership with the Ministry of Communication, Youth and Sports and other national health and social organisations.

HEAVY MODEL MAKING WORKSHOP

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

HEREAFTER (HD) POST-PRODUCTION STUDIO

This is the first HD post-production laboratory in the region using Apple's High Definition (HD) technology and 2K workflow. 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 workflow from filming to editing in HD format. The new technology allows students to film and edit on the go, cutting post-production time significantly.

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, enabling them to relate to the production aspect of the apparel industry. Students can add professional lustre to their apparel and textile design projects here.

DIGITAL PHOTOGRAPHY STUDIO

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

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

Here, students experience, experiment, measure and assess the effects of lighting and sound quality in an interior environment.

MODEL SIMULATION STUDIO

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



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 workflow. 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.

“ 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*

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.

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.

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”.

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 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 the Bahasa Inggeris (English Language) subject.*

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
Elective Subjects	: min 9 credit units
Option Subjects	: 36 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 127 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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
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

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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

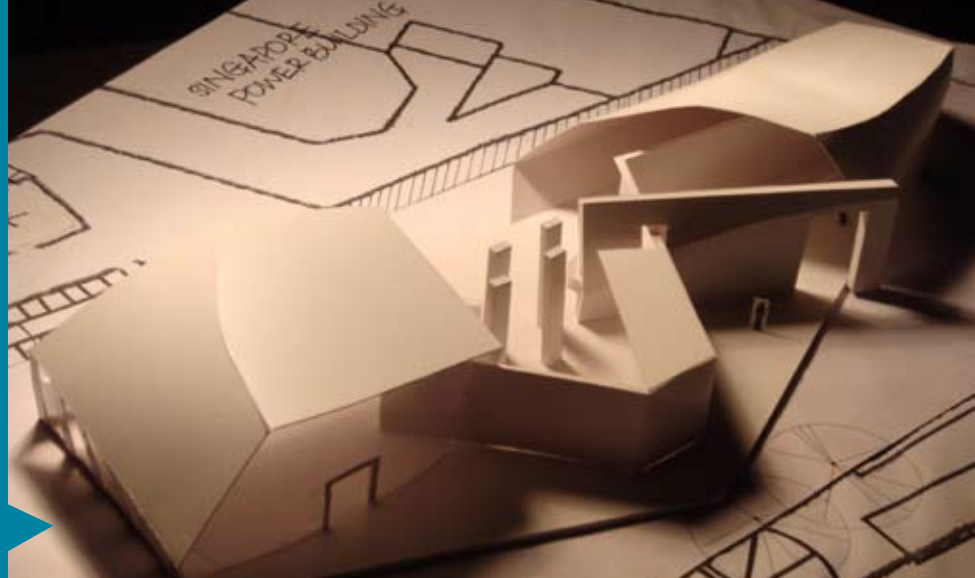
Students will be required to select and undertake three subjects from the list below:

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.

This course crosses over several subject disciplines to cover elements of landscape architecture, urban planning, architecture and environmental technologies. It deals with the design and execution of external space like civic plazas and neighbourhood centres, focusing mainly on quality design for the environment which has become a major issue in developing and developed nations.

You will be plugged into the latest developments in urban Singapore, exploring the aesthetics of creating urban spaces, combined with the knowledge of natural and technical sciences. All 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

“ 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*

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!

CAREER OPPORTUNITIES

When you graduate, you can find 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.

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".

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 1-7
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 the Bahasa Inggeris (English Language) subject.*

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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
Retail & Visual Merchandising Option			
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.

Interactive Media Design



You have your own blog, are constantly connected via MSN, play online games and buy products and services off the web. You are attracted by the immediacy and spontaneous interaction of the online medium, and can't wait to learn how to design such interactive experiences yourself. If you are passionate about design and are keen to harness the vast potential that multimedia and interaction

design have to offer, this may just be the course for you.

Interactive Media Design places you right at the frontier of new media and dynamic design. It's not just about designing web pages. It's about the convergence of web and multimedia technology to create dynamic interactive user experiences. With the reality of rich media content and real-time interaction, it's about pushing the boundaries of online entertainment, interactive television, e-commerce, e-learning, and communications of the future. It's about how we will live, work, and play.

You will design interactive applications and devices that not only look good but are functional, intuitive, and easy to use. You will learn creative idea generation, colour theory, drawing and art techniques, as well as photography. Hands-on projects will develop and expand your graphic

“ 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*

design and technical skills such as multimedia production and interactive authoring to build interactive websites, small-screen mobile applications and experimental interactive installations.

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.

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.

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".

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 1-7
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 the Bahasa Inggeris (English Language) subject.*

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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
DIM1364	Applied Graphic Design 2	1	3
DMV1602	Digital Media Fundamentals	1	3
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
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
DIM3357	Designing for Mobile Devices	3	3
DIM3363	Project 4: IMD	3	6
DIM3365	Interaction Design	3	3
DMP3010	Major Project: IMD	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
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.

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 - offices, 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 efficiently. Through your many hands-on, problem-based creative projects, you will learn about colours, materials, lighting, media, shapes and forms. You will use these and other tools to shape a specific space while considering the requirements of the project. The course will also hone your ability to communicate ideas through a wide range of presentation media, as

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

*Joseph Lau Tse Kit
Managing Director
Laud Architects Private Limited*

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.

CAREER OPPORTUNITIES

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

APPLICATION

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

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 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 1-7
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 the Bahasa Inggeris (English Language) subject.*

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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.

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 see. Not only that. You have a passionate love affair with your battered old Handycam, but lament the lack of top-end facilities to do a top notch job. Well, this is the place where your

prize-winning video or animation can materialise. And it's a pretty cool place to be too.

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

We will impart the essential skills in content creation, conceptualisation, technical knowledge and skills and professional practice in a world class learning environment conducive for nurturing industry-ready professionals for the vibrant media industry. 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 post production suites. With mega industry partners working in tandem with us, you can rest assured knowing

“ 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

you'll receive a quality education that is on par with the best in the world

The course offers options in Animation or Video. 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.

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 and media 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 postproduction editor, or commercial producer/director.

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”.

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 with portfolios of their works that comprise design exercises/projects 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
Elective Subjects	: min 9 credit units
Option Subjects	: 15 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 130 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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
DIM1307	Multimedia Fundamentals	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

Note: Course structure may be subject to revision in response to changes in industry focus and needs.

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 is emotionally expressive; a life-saving device for drowning swimmers; and an unorthodox 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 hones design specialists to design specific 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 is more age-friendly), or simply designing a bicycle for the physically challenged - this course is just right for you.

Here, you will get to understand human-centred behaviours, wants and needs, and you will apply this knowledge to your creative design solutions. The course also gives 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 dynamically creative

“ 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 Electronics Singapore Pte Ltd*

profession where the boundaries and definitions are constantly challenged. There are new and unlimited opportunities in the profession and our product and industrial design course will prepare you well to meet these dynamic challenges in the creative industry.

CAREER OPPORTUNITIES

Our graduates are simply needed everywhere. In diverse fields such as consumer electronics, medical products, 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.

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”.

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 1-7
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 the Bahasa Inggeris (English Language) subject.*

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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	36

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!

Whether it is a swanky boutique, a posh resort or hotel, snazzy restaurant or a happening nightspot, this course will provide you with the professionally-driven skills to design these spaces. You will learn about spatial design, communication graphics, visual merchandising and environmental branding. You will also research emerging lifestyles, culture and the latest concepts in design.

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

CAREER OPPORTUNITIES

Upon graduation, you will have the employment and skill profile to step confidently into the retail and hospitality design industry. You will be able to work

“ 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*

with retail houses, shopping malls, hotels, resorts, entertainment centres, food and beverage outlets, etc. Or you may even choose to work in design firms 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.

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”.

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 1-7
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 the Bahasa Inggeris (English Language) subject.*

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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, a photograph or an illustration and told yourself that you could have done it better? If you've ever wondered if you'd be great at designing print or TV ads, packaging, typography, 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 refinement, 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

“ 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

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.

CAREER OPPORTUNITIES

You are going to be faced with an array of possible career opportunities as you take your first 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!

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”.

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 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 the Bahasa Inggeris (English Language) subject.*

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

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
DCS1013	Communicating Design Ideas	1	3
GBA1001	Applied Principles for Effective Living 1 (APEL 1)	1	1
GBA1002	Applied Principles for Effective Living 2 (APEL 2)	1	1
GBA1003	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

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
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 significant 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 influence over trend and fashion prediction, the process from the design concept to the consumer, the apparel markets and business aspects, as well as careers in the apparel industry.

DAD1104 INTRODUCTION TO VISUAL MERCHANDISING

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

DAD1140 FASHION RETAIL MANAGEMENT

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

DAD1149 TEXTILES MANIPULATION & DESIGN

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

DAD1150 FASHION ILLUSTRATION & PRODUCTION DRAWING

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

DAD1151 APPAREL PRODUCTION 1

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

DAD1152 BASIC DRAPING

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

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

DAD2138 BASIC CAM

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

DAD2142 FASHION PURCHASING MANAGEMENT

This subject focuses on every aspect of buying and the roles played by the practitioners. Operating figures such as Open-to-buy, Dollar Planning and Control, 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 flat pattern drafting techniques and sewing skills. It will also build on your proficiency in operating more complex sewing machines required in the realisation of designs of two collarless tops in lightweight fabrics.

DAD2154 ADVANCED DRAPING

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

DAD2155 VISUAL MERCHANDISING PROJECT 1

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

DAD2156 VISUAL MERCHANDISING PROJECT 2

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

DAD3127 QUALITY ASSURANCE IN TEXTILE & APPAREL

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, colour fastness failure, snaps failure, and wet garment processing.

DAD3157 APPAREL PRODUCTION 3

This module integrates a sense of professionalism with the development of flat pattern drafting techniques and sewing processes in the interpretation and realisation of more complex designs.

DAD3158 TAILORING

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

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 communications 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 findings, define design directions and rationalise design solutions through written and oral presentations.

DED1801 ENVIRONMENT DESIGN PROJECT 1

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 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-finding, 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 scientific principles of environmental control of both internal and external aspects of buildings. Topics touches 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, specifications 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, imageability, 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 covers basic drawing skills and media presentation for communicating the interior design process from conceptualisation to production.

DIA1204 DIGITAL ARCHITECTURAL DRAFTING

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

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.

DIA1220 SPACE PLANNING

This subject focuses on understanding of space planning that sets the stage for effective interior environments. It addresses issues pertaining to anthropometry, ergonomics, behavioural science and design programming and provides a platform for exploring various techniques to creatively resolve challenges related to function and quality of human environments.

DIA1221 COLOUR & LIGHT

The subject covers the theory and application of colour and light to the built environment to create specific 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.

DIA1226 MATERIAL & FINISHES

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

DIA1902 HUMAN ENVIRONMENT PLANNING

This subject deals with issues affecting human environment. It includes the fundamentals in planning environments to fit 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.

DIA2222 PORTFOLIO DEVELOPMENT

This subject equips you with the knowledge and skills of developing design proposals into sufficiently prepared working drawings. It aims to help you achieve competency in building drawing techniques and detailing, and provide a platform for you to demonstrate competency in specifying materials and scheduling for contractual building work. A compilation of development drawings will form an appropriate portfolio for job applications.

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 equips you with general knowledge of regulations and legal guidelines.

DIA3218 RETAIL DESIGN

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

DIA3225 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 identified issue or environmental factors.

DIA3227 CONSERVATION & ADAPTIVE REUSE

This subject provides you with understanding of building conservation and adaptive reuse of old buildings. You will be exposed to various building conservation efforts and the techniques of conserving old buildings for new use. It focuses mainly on building conservation development in Singapore and the rules and regulations pertinent to building conservation adopted by the Urban Redevelopment Authority of Singapore (URA).

DIM1307 MULTIMEDIA FUNDAMENTALS

This subject introduces basic knowledge to students who are interested in web design or the design of interactive multimedia applications. You will learn the basics of designing interactive media for the Web using HTML editors and other interactive application software. It will provide you with an understanding of the various tools and underlying principles of multimedia and web design.

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 reflected 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 fluidity of thought as well as an analytical mind. The subject also introduces visual literacy through which you develop your personal visual language to communicate a 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.

DIM1360 PROJECT 1: IMD

This is a project-based subject where you apply and consolidate your knowledge acquired from other subjects. Working individually, you produce a visual composition and design piece that demonstrates a thorough understanding and application of ideation techniques as well as the integration of fundamental design elements and principles. You will develop an understanding of the design process, enhance your basic research skills and begin to recognise the importance of being a socially responsible designer. You are encouraged to develop a unique personal identity, design style, belief and philosophy.

DIM1364 APPLIED GRAPHIC DESIGN 2

This subject builds upon Applied Graphic Design and aims to further develop your design methodology and conceptual thinking processes and skills. You will synthesise and employ advanced techniques to create appropriate visual imagery, illustration, typography, colour schemes, and layout to communicate complex ideas in an economical and effective manner. You will learn to connect with viewers beyond mere aesthetics to engage them at an emotional and intellectual level through the exploration of form, content, visual perception, visual hierarchy, meaning, and clarity of the message.

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 graphical 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.

DIM2359 FUNDAMENTALS OF INTERACTIVE AUTHORING

This subject introduces the basics of designing dynamic scripting and the different application use to develop multimedia solutions. You will learn the web scripting language and other interactive application software that can enhance the interactivity of multimedia projects.

DIM2361 PROJECT 2: IMD

This subject takes the form of a project and enables you to apply and consolidate your knowledge acquired in other subjects. It allows you to work in teams and produce an interactive media project that culminates in organising an exhibition or multimedia installation. Through this subject, you will further develop your understanding of the design process, enhance your research skills and apply your understanding of the fundamental design principles.

DIM2362 PROJECT 3: IMD

This subject takes the form of a project and enables you to apply and consolidate your knowledge acquired in other subjects to produce an interactive multimedia project that demonstrates the application of advanced interactive scripting language and authoring techniques. It will allow you to produce highly interactive and user-centric multimedia projects by applying concepts and principles of advanced interactive design, integrating rich media elements to enhance user experience and increase interactivity, and implementing principles of dynamic interactive scripting and authoring.

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.

DIM3363 PROJECT 4: IMD

This subject takes the form of a project and enables you to apply and consolidate your knowledge acquired in other subjects to produce an interactive multimedia project. This project can be in various forms, such as an experimental installation, a new interface for a product prototype, or projects that are viable for educational, entertainment or commercial applications. You will analyse and evaluate present design styles and current prevailing technologies, formulate their own perspectives, integrate and apply these observations to anticipate possible future design trends in their project.

DIM3365 INTERACTION DESIGN

This subject allows you to experiment and explore current or emerging trends in interaction design. You will be encouraged to explore and push boundaries using visual, audio and tactile interaction for the display of informative digital content on various mediums, such as websites, plasma/LCD displays and touchscreen/interactive displays. These could also include two-dimensional or three-dimensional spaces for interaction.

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, reflecting your specialisation within the video or animation option. You will utilize 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 reflect upon your project outcomes.

DMP3010 MAJOR PROJECT: INTERACTIVE MEDIA DESIGN

This subject takes the form of a final 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 exemplifies creative independence, strong conceptual thinking and technical proficiency 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-confidence; 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 covers a wide spectrum of design issues from anthropological, social, cultural, market behaviour, human factors and technology in the upstream processes to the downstream production processes of CAD simulation, prototyping, product testing and user feedback.

DMP3012 MAJOR PROJECT: APPAREL DESIGN & MERCHANDISING

This project provides you with the opportunity to integrate the multiple aspects of the discipline of your choice 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 proficiency in areas of their choice in greater depth. Through this project, you will gain an up-to-date working knowledge of professional practice and at the same time produce a well articulated, original and industry-ready portfolio which is reflective of your professional aptitude.

DMP3013 MAJOR PROJECT: INTERIOR ARCHITECTURE & DESIGN

This subject provides 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 specific context, the investigative study, analysis and research into pertinent design issues and the resolution of the design process leading to an appropriate interior design outcome.

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 proficiency 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 reflective of your professional aptitude.

DMP3015 MAJOR PROJECT: ENVIRONMENT DESIGN

This is a core requirement for all students in Environment Design. You will select and define the subject matter for the project, together with guidance from your supervisor. In this, you should fully utilize 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 field of retail and hospitality design. The scope of the subject includes the inception and exploration of design ideas and concepts within a specific context.

DMV1601 CREATIVE STORYTELLING

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

DMV1602 DIGITAL MEDIA FUNDAMENTALS

This subject introduces various aspects of working with digital media, such as types of file compression, fundamentals of digital audio-visual media, filtering 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, filming 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 film structure as a medium of communication. You will be introduced to the narrative techniques of film and the design of the communicative language of the film 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 develops 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 provides 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 influence 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 provides experiences gained from exploring and viewing the physical environment and development of the drawn image. The drawing sessions will generally be based on freehand drawing, placing special demands on seeing/perception (eyeballing), scale, composition and perspective.

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 finally 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 specific materials and competency in joining different materials together in the right methods of construction and finishing 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 finished 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 realize 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 fields, 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 identification and analysis, and simple problem solving. Sketch ideas generated on paper will be translated into coloured renderings and general assembly drawings with the aid of maquettes and mock-ups, using a variety of media and workshop technologies. Issues of functionality, practicality and product semantics and aesthetics will be discussed and refined.

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. You will also need to evaluate and test your design solutions.

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 PROTOTYPING

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 finished 3D prototypes.

DPD3417 THE BUSINESS OF DESIGN

This subject introduces you to the form and structure of various business organisations, financial and accounting issues, legal aspects (contractual agreements, design fees, taxes, trademarks, patents and copyrights), promotion, sales and the building of personal portfolio and credibility. It also gives 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 field 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 conceptualization 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 externalizing 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 of 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 specific 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 through investigation and studies. You are also required to generate design solutions to address the identified issue or topic chosen.

DVC1501 FIGURE DRAWING

Within current contexts of visual studies, the representation of the human form goes beyond traditional modes; mass media provides new platforms in perceiving the human form. A thorough understanding of the human figure will be taught through basic rules and formulas that will be expanded through exercises in instinctive representation. This will be the basis for creative abstraction, stylisation and detailing.

DVC1506 TYPOGRAPHY

This subject introduces you to the principles of type and using type as an expressive communication tool. It allows you to explore issues concerning type, such as form and meaning, hierarchy of information, legibility and readability, structure and composition, and the design of type. You will learn to exploit type with colour, creative integration of type and images, and typographic layout in print communication.

DVC1509 DIGITAL ESSENTIALS

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 field.

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 films, digital capture and aspects pertaining to the depth of field.

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 analyzing design problems and provide sound solutions confidently. It is recommended that you be familiar with software programmes like InDesign, 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 finally 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 influences posed by the mass media on society, and to impart the thinking, methods, skills and processes. It also extends skills and new insights beyond the influence of the interactive electronic age. A firm foundation is provided upon which a more advanced and progressive knowledge and skills in advertising can be built. It covers the importance of target marketing to ensure effective advertising for a consumer product or a service industry. Through a series of assignments, you will explore and discuss the appropriateness and effectiveness of visual images and messages in the creation of persuasive advertisements.

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 final 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 specific 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 4x5 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 defined designer's preproduction responsibility. It also gives you the opportunity to learn different production possibilities for final 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 influences 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 efficiently through interactivity elements such as e-buttons, Flash 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, reflectors, 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 find literary inspiration through drawing. Rethinking the conventions of the comic strip, for example, with the goal of finding 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 film processing, enlargement using RC and FB papers, other alternative photographic processes including hand-applied emulsions of Cyanotype, Van Dyke Brown and other non-silver processes. You will explore other experimental photographic techniques in colour and black and white. This subject will enhance your ability to visualise beyond using the camera and 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 finished campaign series. Discussions extend to cover techniques in visualization 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 are issues of organising and managing information, the systems by which it is coded and classified, 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 fulfill 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 effective corporate identity manuals 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 fulfill differing design objectives. The programme starts with the ability to define 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 re-conceptualised and extended into books, toys, apparel design, etc.

DVC3556 DIGITAL ILLUSTRATION

This subject explores and defines 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 figure 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 mould 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.

GBA1001/1002/1003 APPLIED PRINCIPLES FOR EFFECTIVE LIVING (APEL)

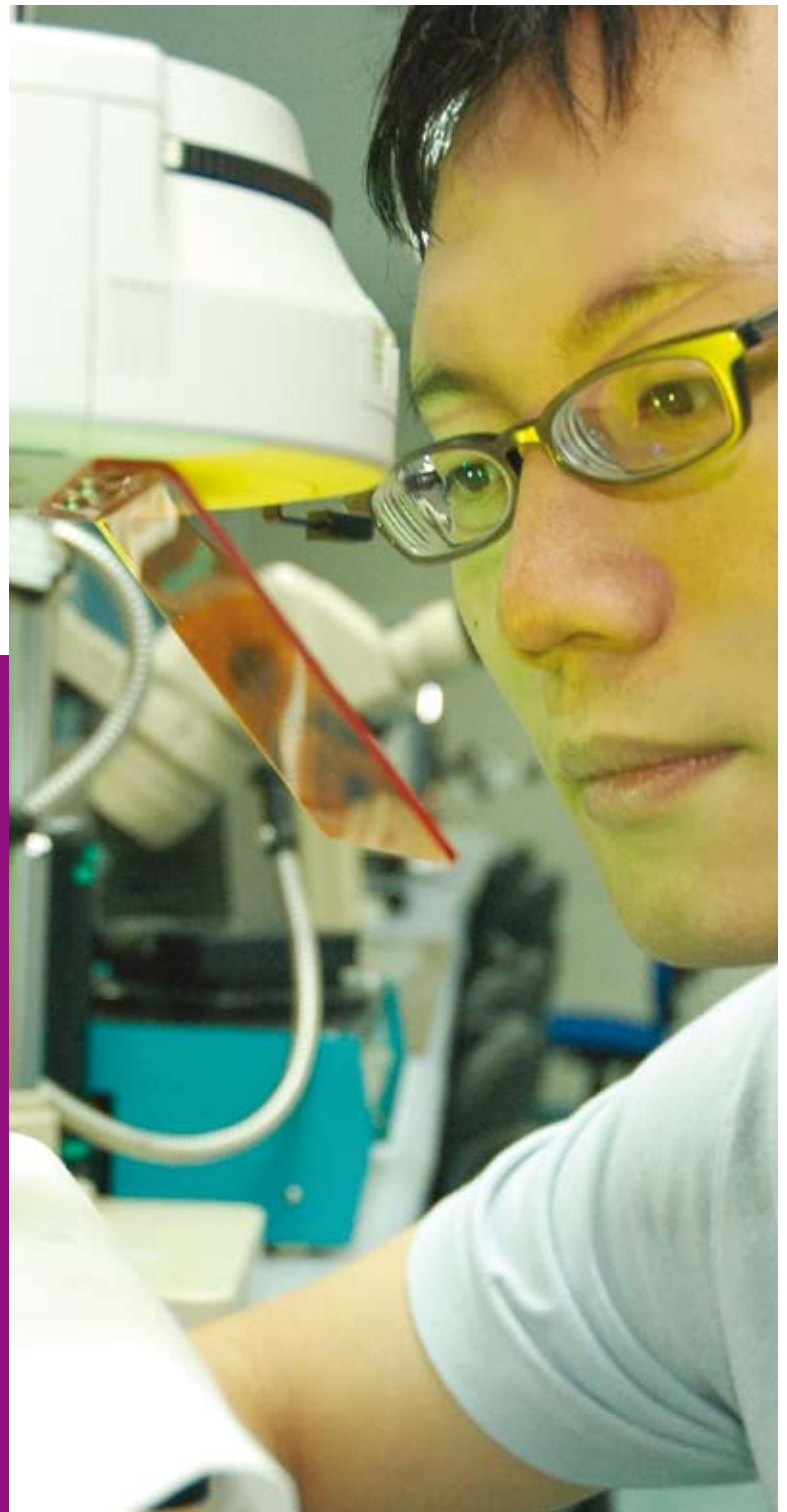
Applied Principles for Effective Living is TP's Core Programme consisting of three subjects, namely APEL 1 (Personal Effectiveness), APEL 2 (Interpersonal Effectiveness) and APEL 3 (Extrapersonal Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (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 15 exciting diploma courses — all of which provide you with a broad based curriculum that opens the doors to flexible career opportunities in Singapore's new knowledge-based economy. The Electives/Options in our courses allow you to specialise in exciting fields with great prospects, and yet get a broad-based training in other popular engineering areas. In short, there is specialisation with flexibility, so as to give you an edge in today's dynamic and rapidly evolving economy.

Centres of Excellence

CLEAN ENERGY CENTRE

This Centre deals with clean energy technology and applications such as fuel cell technology and applications, solid-state power electronics and energy efficiency and management. It has modern research facilities with state-of-the-art equipment for conducting applied and industry-relevant R&D in clean energy technology such as fuel cell technology, LED lighting, solar-hydrogen technology and applications, and analogue switching power circuits.

INFOCOMM SOLUTIONS CENTRE

This Centre focuses on core technologies involving enterprise web services and solutions, network technologies, mobile applications and game development. It aims to proliferate and develop these technologies for R&D, training and industry collaborations. The Centre seeks to continually renew and align itself with IDA's iN2015 initiatives. It has successfully partnered consortiums led by industry champions in various Calls for Collaborations (CFC) such as Connecting the Community CFC (2002), Healthcare CFC (2004) and FutureSchools@SG CFC (2008). Some of the key collaboration partners include Philips Electronics (S) Pte Ltd, Microsoft Singapore, ST Electronics (Training & Simulation Systems) Pte Ltd and Sun Microsystems.

MICROELECTRONICS CENTRE

Microelectronics has emerged with more stringent, complex and competitive standards, as it moves towards the nano era. This Centre 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.

ROBOTICS & AUTOMATION CENTRE

This Centre strives to foster, develop and promote technologies through innovation, applied research, capability development and application in robotics and automation relevant to industry needs. The core technological areas include wireless sensor network, embedded intelligent system, robotic navigation, path planning, obstacle navigation, motion control for research robots, programmable/motion control for automation, machine vision, process control and simulation.

BIOMEDICAL ENGINEERING RESEARCH CENTRE

This interdisciplinary research centre provides the platform to promote the interaction of clinicians, chemists, bio-chemists, electrical & electronic engineers, mechanical engineers and industrial designers to invent, innovate and provide cost effective solutions in the treatment of end-stage renal disease (ESRD). The Centre also aims to provide the technology to the industry for commercialisation as well as the expertise in biomedical regulatory compliance.

INTERACTIVE DIGITAL CENTRE ASIA (IDC ASIA)

IDC Asia is a strategic partnership founded by TP, IM Innovations Pte Ltd and EON Reality Inc., and is supported by the Infocomm Development Authority of Singapore (IDA). The Centre aims to provide leadership in use-inspired research, innovative application development and system integration to support 3D visualisation technologies. IDC Asia's role is to help the various industry sectors such as healthcare, education, transportation, aerospace, architecture, construction and engineering adopt innovative Interactive Digital Media (IDM) solutions in order to gain a competitive advantage in their business. IDC Asia is positioned as a leading virtual and physical hub for connectivity, innovation and collaboration amongst the Interactive Digital Media (IDM) community, especially in Singapore and the Asia-Pacific region.

CENTRE FOR AVIATION RESEARCH & TECHNOLOGY

This Centre was created to meet the needs of the aviation/aerospace industry for quality training, consultancy and collaborative industry-focused applied research projects. The Centre's core competencies lie in the areas of aviation management, aerospace electronics and aerospace engineering. Equipped with state-of-the-art training and research facilities, it aims to collaborate with like-minded industry players and training institutions to further the industry's human resources development, safety and economic goals.



Aerospace Electronics

NEW!



Step into an aircraft's cockpit and you will see a myriad of colourful lights, state-of-the-art instruments, bright LCD displays and dual joysticks for flight control navigation. Want to know how these gadgets work together to control the aircraft thousands of metres above sea level? This course will provide you with the answers, and more!

In 2007, the value of Singapore's aerospace sector hit a record \$6.9 billion, up from \$6.3 billion the year before. In fact, the Aerospace

industry in Singapore has been growing at a rapid rate over the past few years, with annual output rising by about 13 percent each year, which spells exciting times ahead for you.

In this course, you will learn about aircraft electronics (avionics) systems, aircraft navigation and flight control systems. You will also be trained to sit for the 12 modules in the SAR-66 Aircraft Maintenance License (AML) Category B2 examinations, and may earn direct credits that allow you to get your AML certification much sooner.

CAREER OPPORTUNITIES

The rapid growth of the aerospace industry will create a strong demand for skilled aerospace professionals in the next few decades. You will be highly sought after as an aircraft maintenance engineer, aircraft electrical system specialist, avionics design and development engineer,

“ This programme, which meets the CAAS's latest maintenance personnel licensing standards, aims to produce competent professionals to meet the dynamic needs of the aviation industry. We are confident that students who graduate from this training programme will be sought after by the aviation industry.

Lim Kim Choon
Director-General and Chief Executive Officer
Civil Aviation Authority of Singapore (CAAS)

avionics system specialist, or avionics test engineer. Career opportunities will abound in the field of aircraft maintenance, repair and overhaul, avionics testing and measurement, the design, development, manufacturing and technical sales

of aircraft systems and components, or aerospace engineering support and services.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

Note: Applicants with partial or complete Colour Appreciation Deficiency are not eligible to apply. For safety reasons, applicants should not be suffering from epilepsy or hearing impairment.

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 95 credit units
Elective Subjects	: 10 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 133 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
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
EAE1002	Electrical Fundamentals	1	4
EAE1003	Electronic Fundamentals & Systems	1	4
EAE1004	Fundamentals of Aeronautical Science	1	4
ECC1002	Networking Fundamentals	1	4
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
EAE2002	Aviation Legislation & Human Factors	2	4
EAE3006	Radio Fundamentals & Navigation Systems	3	4
EAE3007	Propulsion & Instrument Systems	3	4
EAE3009	Basic Aerodynamics	3	3
EAE3010	Electrical Power & Onboard Systems	3	4
ECT2001	Circuits & Control Systems	2	5
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EMP3001	Major Project	3	12

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EAE3011	Aircraft Structures & Flight Control	3	4
EAE3012	Aircraft Test & Measurement	3	3
EAE3013	Higher Aerospace Training	3	10
EAE3014	Lean Processes	3	3

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.

Aerospace Engineering

NEW!



Have you ever wondered how an aircraft that weighs hundreds of tonnes is able to overcome its own weight and seem to float in the sky? Want to know how an aircraft's engine, mechanical parts, and even its shape help it to fly? These are some of the things you will find out in this course.

In 2007, the value of Singapore's aerospace sector hit a record \$6.9 billion, up from \$6.3 billion the year before. In fact, the Aerospace industry in Singapore has been growing at a rapid rate over the past few years, with annual output rising by about 13% each year, which spells exciting times ahead for you.

In this course, you will learn about aircraft design, airframe structure, engine systems, and manufacturing of aircraft systems. You will also be trained to sit for the 12 modules in the SAR-66 Aircraft Maintenance License (AML) Category B1 examinations, and may earn direct credits that allow you to get your AML certification much sooner.

“ The unique partnership [between Temasek Polytechnic and Lufthansa Technical Training] will enable, for the first time in Singapore, an education institution to deliver CAAS-approved content. This will prepare TP's graduates very well for the industry.

*Ko Kheng Hwa
Managing Director (2001 – July 08)
Singapore Economic Development Board*

CAREER OPPORTUNITIES

The rapid growth of the aerospace industry will create a strong demand for skilled aerospace professionals in the next few decades. You will be highly sought after as an aircraft maintenance engineer, structural or composites specialist, engine or powerplant technologist, aerospace component design engineer, or an aero-mechanical systems specialist. Career opportunities will abound in the field of aircraft maintenance, repair and overhaul, aerospace components design and development, aircraft engine services, technical sales, and servicing of aircraft system and components.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

Note: Applicants with partial or complete Colour Appreciation Deficiency are not eligible to apply. For safety reasons, applicants should not be suffering from epilepsy or hearing impairment.

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 98 credit units
Elective Subjects	: min 10 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 136 credit units

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
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
EAE1005	Engineering Design	1	3
EAE2001	Aerospace Physics	1	4
EPL1003	Problem-solving & Process Skills	2	2
EAE1002	Electrical Fundamentals	2	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EME2008	Principles of Dynamics	2	5
EAE1003	Electronic Fundamentals & Systems	2	4
EAE2002	Aviation Legislation & Human Factors	2	4
EME2006	Engineering Materials	2	4
EAE3008	Gas Turbine Engine	2	4
EAE3009	Basic Aerodynamics	2	3
EMP3001	Major Project	3	12

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EAE3013	Higher Aerospace Training	3	10
EAE3014	Lean Processes	3	3
EAE3015	Aircraft Structures & Composites	3	4
EAE3016	Aircraft Aerodynamics & Systems	3	3

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.

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 and Boeing 787 Dreamliner.

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 and business 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.

“ With the strong growth of air travel in the region, it is timely that Temasek Polytechnic offers this new course which will better prepare school leavers who intend to build a career in the aviation Industry. It 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 and customer services, flight operations (including flying), air traffic control, in-flight hospitality, aviation commercial development, marketing and management 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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

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	Airfield Systems 1	2	4
EAT2004	Airfield Systems 2	2	4
EBD2001	Total Building Performance	2	4
EBD2005	Security & Surveillance	2	4
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 field of life sciences is 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

“ This course provides students with knowledge in electronics, life sciences and also web designing. This proves very useful in a biomedical start-up research and development company like ours because we need our employee to be knowledgeable in different areas and can adapt to a wide range of job scopes. A graduate from this course would have a good understanding of the medical issues of our product, be able to help in chemical and biological testing, and also handle the electrical and mechanical systems well.

*Sean Liu Xin
Manager, Regulatory Affairs and Compliance
AWAK Technologies Pte Ltd*

prominent overseas biomedical companies have set up base in Singapore over the past two years, providing enormous job opportunities and career advancement prospects for holders of this diploma.

CAREER OPPORTUNITIES

You will be able to find employment in design, manufacturing and marketing companies (MNCs, SMEs, or public companies) dealing in the life sciences and electronics, as well as government agencies, health care institutions, 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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 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

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
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 and problem-solving 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 find employment in both manufacturing and non-manufacturing sectors in the industry. There are career opportunities as administration officers, customer service officers, assistant engineers, engineering assistants, technical sales executives, quality assessors, service quality officers, technical buyers, quality consultants, management systems executives, customer accounts executives, quality management representatives, training executives and project management executives.

“ I found the students from this course to be thoughtful and creative thinkers. The subject matter was advanced even for seasoned executives, yet these students mastered the concepts and applied them with ease to both business and societal challenges. I was also impressed by their willingness to ask difficult questions both of themselves and of others, and to experiment with ideas beyond the scope of what was already known.

Samantha Tan
Partner
The Meristem Group LLC, USA

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Core Subjects	
Core Subjects	: 103 credit units
Elective Subjects	: min 4 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 135 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
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	Managing 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.

Clean Energy

NEW!



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

In 2007, the National Research Foundation and the Research, Innovation and Enterprise Council identified the clean energy industry as a key growth engine of the Singapore economy. The sector is growing at a rate of up to 50 percent per year, and is expected to generate an annual output of \$1.7 billion by the year 2015.

This course will train you in the various clean energy technologies, including photovoltaic or solar cells, fuel cells, biomass, hydropower and wind energy. Areas that are intricately-connected with the utilisation of clean energy, such as electrical systems and power distribution, will also be covered. You will also get to use the new state-of-the-art Clean Energy Centre located on campus.

“ Phoenix Solar welcomes the timely launch of this course. From a small base today, the clean energy sector here is growing fast, thanks to several government initiatives and the declining costs of technology. We anticipate significant demand for qualified personnel in the clean energy industry by the time the first cohort graduates from this course.”

*Christophe Inglin
Managing Director
Phoenix Solar Pte Ltd*

CAREER OPPORTUNITIES

As economies around the world continue in their effort to search for alternative energy sources, the clean energy industry is expected to expand rapidly. In Singapore, the sector is expected to create 7,000 new jobs by the year 2015, spelling bright career prospects for you.

You will find exciting job opportunities as an energy auditor, energy management executive, electronics or electrical assistant engineer, or as a research associate in the renewable energy sector. There are bright prospects in the environmental, energy, power utility and electrical service industries, renewable or clean energy companies and research centres, as well as manufacturing and equipment supply companies.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 100 credit units
Elective Subjects	: min 8 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 136 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
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
ECS3002	Career Communication	3	2
ESI2001	Student Internship Programme	2	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EBD1001	Computer-Aided Design & Building Specifications	1	5
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
EER1001	Electrical Services for Facilities	1	4
ECE1001	Fundamentals of Clean Energy	1	4
EMA2001	Engineering Mathematics 3	2	5
EMC2001	Microcontroller Technology	2	5
EMI2001	Semiconductor Physics & Devices	2	4
ECE2001	Energy Conversion & Storage Systems	2	4
ECE2002	Renewable Energy	2	4
EEE3004	Power Electronics & Drives	2	4
EER2001	Electrical System & Power Distribution	2	4
ECE2003	Fuel Cell Design & Testing	2	4
ECE2004	Solar Cell Design & System	2	4
ECE3001	Clean Energy Processes	3	4
EMP3001	Major Project	3	12

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECE3002	Renewable Energy System Integration	3	4
ECE3003	Energy Efficiency & Management	3	4
EBM3001	Energy Audit	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-Pacific 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 proficient 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, embedded applications, computer networking and security, and computer systems and architecture.

“ We had the pleasure of working with Computer Engineering students from TP to develop prototype applications for our research projects. These students displayed commendable skills and knowledge, a testimony of TP’s success in equipping their students with the critical competencies to meet the dynamic needs of today’s industry.

*A/P Philip Wong
Divisional Director
Academic Computing & Information Services
National Institute of Education*

CAREER OPPORTUNITIES

Due to the versatility of the skill 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 find 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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

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

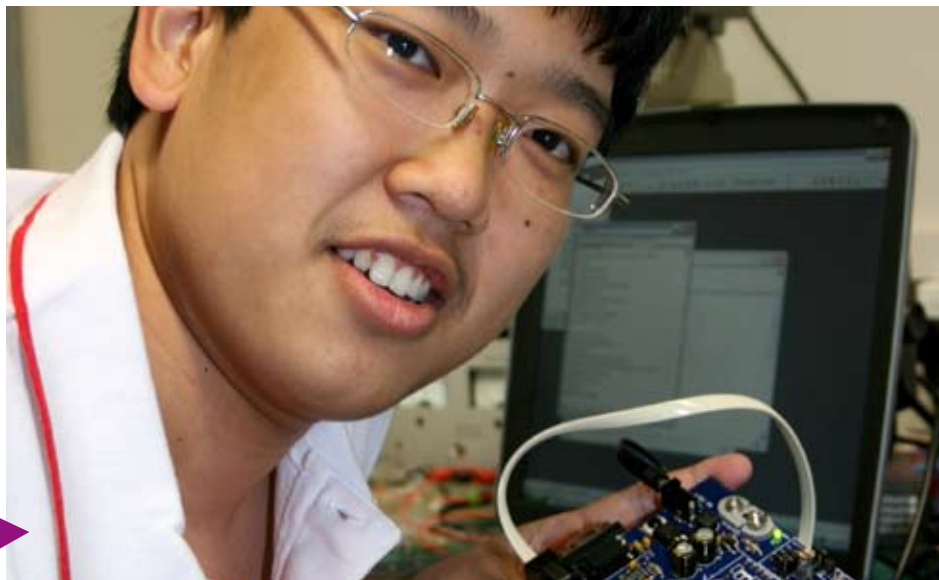
Students can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma elective subjects, aim to help stretch the potential and meet the aspirations of students.

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 certified modules offered.

To be better prepared for the advancements in technology, second year students will choose to take one of the following Cluster Electives or Options, each of which comprises at least five

“ The TP students whom I worked with on a mobile robot research project demonstrated strong technical knowledge, excellent working skills and great enthusiasm in learning, testifying to the all-round benefits they have received from their course.

*Assoc Prof Wang Han
Division of Control and Instrumentation
School of Electrical & Electronic Engineering
College of Engineering
Nanyang Technological University*

subjects. These Cluster Electives or Options are: Aerospace Electronics, Networking, Mobile Computing, Photonics, Robotics or Engineering Business.

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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 55 credit units
Option / Elective Subjects	: 52 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 133 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
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 – Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Aerospace Electronics			
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
EAE1002	Electrical Fundamentals	1	4
EAE1003	Electronic Fundamentals & Systems	1	4
EAE1004	Fundamentals of Aeronautical Science	1	4
EAE2002	Aviation Legislation & Human Factors	2	4
EAE3006	Radio Fundamentals & Navigation Systems	3	4
EAE3007	Propulsion & Instrument Systems	3	4
EAE3009	Basic Aerodynamics	3	4

Diploma Subjects – Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Engineering Business			
ETW1001	Telecommunications & Systems	1	4
ECC1002	Networking Fundamentals	1	4
EBZ1001	Business Fundamentals	1	5
EBZ1002	Principles of Economics	1	4
EBZ2006	Service Quality & Management	2	4
ECC1003	Web Application Project 1	1	4
ESZ1002	Quantitative Methods	1	4
EBM3003	Financial Management & Forecasting	3	4
EBZ2005	Marketing Concepts & Strategies	2	4
ECS2002	Engineering Business Communication	2	4
EPZ3001	Customer Relationship Management	3	4
EBZ2002	Marketing Intelligence	2	4
EBZ3008	Technopreneurship	3	4

Diploma Subjects – Cluster Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
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
ECC3008	Network Security	3	4

Diploma Subjects – Cluster Elective 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

Special Electives

Students can opt to take Special Electives when offered. These optional subjects, taken in addition to the diploma option/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



Social networking, digital gaming, digital media and entertainment and smart phones are some of the buzz words today. These technologies are all enabled by Infocomm, a field that harnesses the use of IT and Telecommunications.

Singapore's Infocomm sector is a key contributor to its economy. Infocomm has also greatly enhanced Singapore's competitiveness by raising productivity and transforming business processes.

This course will empower you to tap the huge market for new Infocomm services and applications in industries such as healthcare, education, hospitality, retail and tourism, and financial services. It enables you to 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, this course also incorporates business skills to provide you with the know-how of being a technopreneur. You will have opportunities to work on industry-collaboration projects that will make your learning more challenging and practice-oriented.

TP and its students have played a key role in turning ideas into products at our Philips Innovation Centre in Singapore. New healthcare, telecommunications and information technology platforms have been successfully developed through this partnership.

*Bill Malecki
Site Director, Philips InnoHub
Philips Electronics Pte Ltd*

To be further prepared for the Infocomm industry, final-year students will choose one of two Cluster Electives: Wireless Technology or Computer Game Programming & Web Services.

CAREER OPPORTUNITIES

This is an exciting and ideal time to “ride on” the Infocomm wave. Domestic Infocomm revenue grew by 10.3 percent to reach \$18.13 billion in 2007, up from \$16.44 billion in 2006. Under the Infocomm Development Authority’s Intelligent Nation 2015 (iN2015) and Next Generation National Broadband Network (Next Gen NBN), Singapore aims to increase the value-added of the Infocomm industry to \$26 billion, and an increase in Infocomm export revenue to \$60 billion. At the same time, an additional 80,000 Infocomm jobs would be created within the next decade.

Graduates of this course will have abundant job opportunities as programming and applications/ solution developer, systems/software design and administrator, multimedia system engineer, network system engineer, web services specialist, wireless Internet service developer, Infocomm sales and marketing executive.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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

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
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
ETW1001	Telecommunications & Systems	1	4
ESE2004	Object-oriented Programming	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 - Option Subjects (taken at Level 2.2) – choose 1 subject

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ESE2005	Advanced Java Programming	2	4
ECC3001	Internetworking Technologies	3	4

Diploma Subjects - Cluster Electives Subjects (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 option & cluster 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



Image source: Marina Bay Sands

New facilities such as the integrated resorts at Marina City Centre and Sentosa, 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.

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 well-rounded curriculum offered by this course will certainly help to turn its students into professionals who are ready to deliver world-class service upon the opening of Singapore’s two new Integrated Resorts, ensuring a bright future for them.

*George Tanasijeich
Vice President, Singapore Development
Marina Bay Sands Pte Ltd*

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 Certified Associate in Project Management (CAPM) certification by the Project Management Institute (PMI), as well as the Certification in Business Continuity Management by the Business Continuity Management Institute (BCMI).

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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

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 Specifications	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
EBZ2006	Service Quality & 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
EMP3001	Major Project	3	12

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

Intelligent Building Technology



Image source: URA, Singapore

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 financial centre at Marina Bay with facilities for business, entertainment and recreation, all come with the latest intelligent features. Existing buildings are also continually being retrofitted 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, office 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.

“ Students of this course who were attached to our company were able to contribute effectively in a real-life engineering and building technology environment and out-perform other students here. As a result, our engineers spent much less time training them. This could be attributed to their strong knowledge base which they acquired from this course at TP

*Jimmy Chua
Chairman
Asian Institute of Intelligent Buildings (Singapore) &
Managing Director
Quantum Automation Pte Ltd*

CAREER OPPORTUNITIES

Along with your diploma, you will also earn a Fire Safety Manager certification, 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 officers, building specialists and designers, or fire safety managers.

You will also be well positioned to further your qualifications by getting a bachelor's or master's degree at university in the fields of intelligent buildings, electronics and electrical engineering, facility management, property and real estate management, and architectural-related programmes.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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

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 Specifications	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.

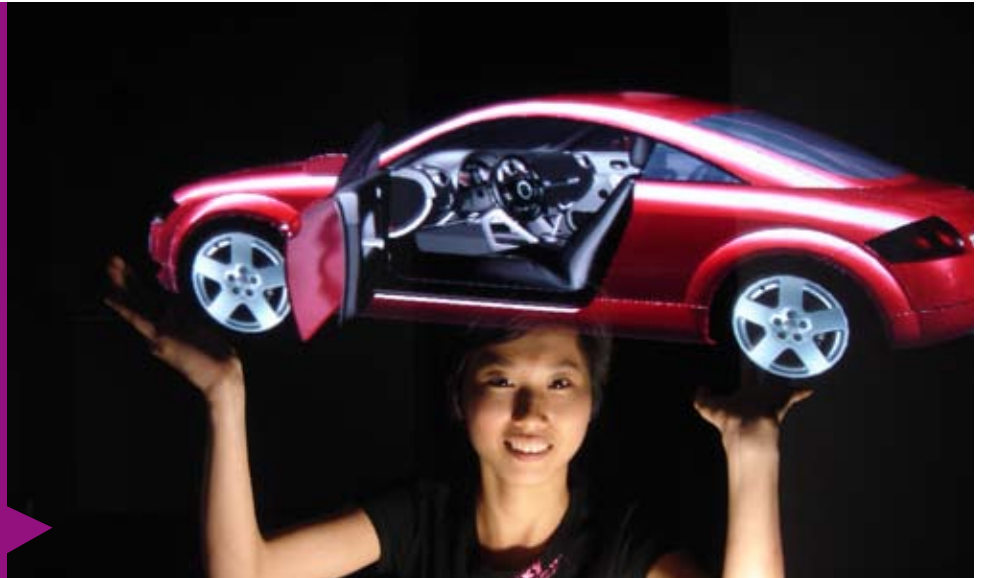
These optional subjects aim to help stretch the potential and meet the aspirations of students.

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



You would have definitely come across some 3-dimensional (3D) animation, graphics or simulation – which are widely used in educational materials, advertising, websites, presentations, and of course 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 very exciting course will enable you to tap into this growing market for Interactive Digital Media (IDM) as more companies start to deploy state-of-the-art technology to create 3D graphics to market their products or to design and simulate real-life effects in virtual training for maintenance and manufacturing.

Companies in the aerospace, medical and automotive industries, as well as defence weapon manufacturers and architectural design firms are 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 with the relevant skills and knowledge to create and use such 3D applications, and to harness innovative

“ We are pleased that TP has launched such an exciting course which uses similar 3D Interactive Digital Media technologies targeted for use in the vibrant sectors of Singapore's economy, such as engineering and transportation. This course offers a unique combination of digital media concepts and engineering tools to prepare our students to meet the expected strong demand for such skill-sets and know-how.

*Vincent Ong
Managing Director
IM Innovations Pte Ltd*

technology to create exciting interactive visual simulations. You will also learn to link them to hardware and software systems.

CAREER OPPORTUNITIES

You will be able to find 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 five 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.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

English Language (EL1) *	Grades 1-7
Mathematics (E or A)	Grades 1-6
Any one of the following subjects [^]	Grades 1-6
Any two other subjects, excluding CCA	-

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

[^] Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

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	: 110 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 138credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
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
EBM2004	Project Management	2	4
EDM2003	Fundamental 3D Interactive Digital Media	2	3
EDM2004	Advanced Digital Animation & Special Effects	2	4
EDM2005	IDM Project	2	6
EED2008	Product, Process & Computer Aided Design	2	4
EED3013	Rapid Prototyping & Model Making	3	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

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 final year, choose to take any of the three Cluster Electives involving key areas of technology. These are: Process Control & Automation, 3D Design & Visualisation, and Robotics.

“ We believe Mechatronics will continue to be a vital and relevant field for Singapore’s knowledge based economy. TP has kept its Mechatronics course highly relevant by injecting the latest topics into its curriculum and through the consistent interfacing with industry partners. Its diploma holders are therefore well trained to match the needs of the industry.

*Lieu Yew-Fatt
Managing Director
Omron Electronics (Singapore) Pte Ltd*

Both the Aerospace Engineering Option and the Cluster Electives allow you to specialise in exciting fields 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 find yourself more industry ready upon graduation.

CAREER OPPORTUNITIES

The market opportunities and benefits 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 qualified to work in high-tech manufacturing environments and the growing petrochemical industry. Your diploma also enables you to take up local and overseas degree programmes in electronics, mechanical or computer engineering.

APPLICATION

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

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
Any two other subjects, excluding CCA	–

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

[^] Biology, Chemistry, Combined Science, Design & Technology, Engineering Science, Physical Science, Physics, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry).

Note: For safety reasons of staff and students, applicants should 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	: 80 credit units
Option / Elective Subjects	: 29 credit units for elective options of Process Control & Automation, 3D Design & Visualisation, and Robotics. 27 credit units for Aerospace Engineering option.
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 137 credit units for elective options of Process Control & Automation, 3D Design & Visualisation, and Robotics. Min 135 credit units for Aerospace Engineering option.

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
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
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
EMP3001	Major Project	3	12

Diploma Subjects - Elective Options Subjects.

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Aerospace Engineering			
EAE1002	Electrical Fundamentals	1	4
EAE1003	Electronic Fundamentals & Systems	1	4
EAE2002	Aviation Legislation & Human Factors	2	4
EAE2001	Aerospace Physics	2	4
EME2006	Engineering Materials	2	4
EAE3008	Gas Turbine Engine	3	4
EAE3009	Basic Aerodynamics	3	3
Process Control & Automation			
ECC1002	Networking Fundamentals	1	4
ECT2001	Circuits & Control Systems	2	5
EED2007	Mechatronics Design Project	2	4
EEE3004	Power Electronics & Drives	3	4
ECT2004	Instrumentation & Computer Control	2	4
EMF3004	Automation & Machine Vision	3	4
EMI3005	Cleanroom Equipment & Technology	3	4
3D Design & Visualisation			
ECC1002	Networking Fundamentals	1	4
ECT2001	Circuits & Control Systems	2	5
EED2007	Mechatronics Design Project	2	4
EEE3004	Power Electronics & Drives	3	4
ECA3002	Virtual Reality	3	4
ECA3003	3D Modelling	3	4
EED3006	Product / Process Design	3	4
Robotics			
ECC1002	Networking Fundamentals	1	4
ECT2001	Circuits & Control Systems	2	5
EED2007	Mechatronics Design Project	2	4
EEE3004	Power Electronics & Drives	3	4
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 field of communication. It enables you to participate in this fast expanding field, 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 first 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 refine your specialisation by choosing elective subjects in areas such as multimedia networking and applications, wireless and mobile communications, and digital broadcasting.

“ We have worked with two TP interns from this course, and we are very pleased with their knowledge and work ethic. We are confident that with their valuable skill-sets, these students will definitely be able to make a contribution to the growth and development of our company when they join us.

*Winson Yap
Senior Manager
Skycom Satellite Systems 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 fields of designing, manufacturing, sales and marketing, service and maintenance or technical support in the communications, digital media, infocomm or broadcasting industries.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 96 credit units
Elective Subjects	: min 12 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 136 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ECS1003	Writing & Oral Presentation	1	2
ECS1004	Introduction to Effective Communication	1	2
ECS2003	Organisational Communication	2	2
ESI2001	Student Internship Programme	2	8
ECS3002	Career Communication	3	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

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
EDM1001	Modelling & Animation	2	5
EDM1002	Fundamentals of Digital Media Processing	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 Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EDM2004	Advanced Digital Animation & Special Effects	2	4
ECC3001	Internetworking Technologies	3	4
ETW3001	Mobile Communications	3	4
ETW3010	Multimedia Network & Services	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 field of engineering that deals with the study of the miniaturisation of electronic components. It involves the design, fabrication and testing of microcircuits, also known as integrated circuit (IC) chips. These ICs are used extensively in 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 first 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 specific microelectronics areas such as computer-aided IC chip design and layout, IC chip making or wafer fabrication technology, IC chip packaging process, IC chip test engineering, and IC chip failure analysis and reliability. There will be laboratory exercises, computer-aided

“ I am pleased to note that this course prepares students for a career in the semiconductor industry by providing 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*

design assignments, mini-projects, opportunities to handle high-tech microelectronics equipment and a major project. You will also get to use our Class-100 Clean room and explore the field of nanotechnology.

CAREER OPPORTUNITIES

You will be equipped with technical skills to gain proficiency in the use of basic electronics and microelectronics related equipment, as well as effective communication skills. You will also be proficient in analogue and digital systems. These skills will be your springboard to exciting careers with good starting salaries in multi-billion dollar wafer fabrication plants, IC chip assembly and test companies, and IC chip design centres. Job prospects are attractive and diverse, covering design, technical support, manufacturing, sales and marketing, as well as service and maintenance.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

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

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

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

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 Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
EMI3002	Display Technology	3	4
EMI3004	Materials Science	3	4
EMI3005	Cleanroom Equipment & Technology	3	4
EMI3007	Nanotechnology	3	4
EMI3008	IC Layout & Physical Design	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 graphical 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 Subject Synopses 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 also touches on the history and the role of key players in the aviation industry.

EAE1002 ELECTRICAL FUNDAMENTALS

This subject covers the electrical fundamentals of generation and sources of electricity, fundamental electrical components, magnetism, filters, generator and motors. It also covers basic aircraft electrical systems.

EAE1003 ELECTRONIC FUNDAMENTALS & SYSTEMS

This subject covers the basics of semiconductors, integrated circuits, printed circuit boards, servomechanisms, electronic instrument systems, logic circuits, fibre optics, electronic displays, electrostatic sensitive devices, electromagnetic environment and digital aircraft systems.

EAE1004 FUNDAMENTALS OF AERONAUTICAL SCIENCE

This subject gives a broad overview of the basic concepts involved in aeronautical science. Beginning with units for different quantities, the subject covers mechanical forces, principles of moments, stress and strain, properties of solids, fluids and gases, simple harmonic motion, momentum and energy, gyroscopic principles, viscosity and compressibility, heat capacity and heat transfer, laws of thermodynamics, latent heat, principles of light, lenses & mirrors and fibre optics. Transverse and longitudinal waves, intensity and pitch of sound, and vibrating strings and pipes are also included.

EAE1005 ENGINEERING DESIGN

This subject applies mechanical engineering knowledge in real-life design applications. Built upon the fundamentals of engineering drawings, you will have opportunities to use 3D computer-aided design (CAD) tools to realise, optimise and simulate your designs. It also introduces concepts of tolerance, limits and fits and methods for creating documentation.

EAE2001 AEROSPACE PHYSICS

This subject consists of four principal areas. Fluid dynamics covers statics, dynamics and total pressure, and Bernoulli's theorem. Thermodynamics covers the property of ideal gases and heat, and laws of thermodynamics. Optics covers the reflection and refraction of light. Wave motion and sound covers mechanical waves, interference phenomena, speed of sound, production of sound and the Doppler effect. The syllabus is based on the Singapore Airworthiness Requirements (SAR-66) Module 2 on "Physics".

EAE2002 AVIATION LEGISLATION & HUMAN FACTORS

The subject provides basic knowledge and understanding of aviation legislation and human factors for ab-initio engineers studying for their Singapore Airworthiness Requirements (SAR-66) engineering licence. Knowledge of this subject has a significant impact on the safety standards expected of an aircraft maintenance engineer.

EAE3006 RADIO FUNDAMENTALS & NAVIGATION SYSTEMS

This subject introduces basic concepts of radio theory and navigation systems. The fundamentals of communication systems used in aircraft communication including intra-aircraft communication, as well as the system and subsystem level coverage of different navigation systems will also be included. Basic concepts and operations of different landing systems are also discussed. The fundamentals of radar and its application in weather detection and air traffic control transponder will be emphasised.

EAE3007 PROPULSION & INSTRUMENT SYSTEMS

This subject covers the basic construction and operation of various turbine engines used in the aircraft and the operation of the various instruments or systems used to measure the aircraft engine's parameters. This subject also introduces basic principles and operation of the various aircraft instrument systems such as pitot-static systems, ground proximity warning systems, air data computer and gyroscopes.

EAE3008 GAS TURBINE ENGINE

This subject equips you with the knowledge of aircraft propulsion methods, thermodynamic cycles, combustion and thermo-chemical analysis, reciprocating engines, gas turbine and jet engines, effects of atmospheric variations (temperature, density, pressure altitude) on engine and on engine/aircraft combination, auxiliary systems (such as fuel system, lubrication system, ignition, starting, fire protection, auxiliary power unit), and current developments in propulsion systems. You will gain knowledge leading to the CAAS Aircraft Maintenance Licence (AML) qualification.

EAE3009 BASIC AERODYNAMICS

This subject introduces you to the principles of aerodynamics and flight controls. It is designed to give an ideal balance between theoretical knowledge and application. There will be classroom lessons as well as experiments involving the wind tunnel and computational fluid dynamics. This subject also prepares you for the CAAS Aircraft Maintenance Licence (AML) examinations.

EAE3010 ELECTRICAL POWER & ONBOARD SYSTEMS

This subject covers the electrical power systems on an aircraft. These include batteries installation and operation, DC and AC power generation and regulation. Also included are emergency power generation and external/ground power systems. The lighting systems on aircraft, and on board maintenance systems such as central maintenance computers will be also covered.

EAE3011 AIRCRAFT STRUCTURES & FLIGHT CONTROL

This subject introduces the fundamentals of structural systems. The protection of an aircraft from lightning strikes will also be covered. Also included are the fundamentals of automatic flight control, autopilot navigation aids, as well as the operation and principles of automatic landing systems.

EAE3012 AIRCRAFT TEST & MEASUREMENT

This subject introduces you to the common practices in test and measurement procedures and methodology in the avionics industry. Basic radio frequency (RF) testing principles and techniques will be covered. Equipment calibration and traceability concepts will also be introduced.

EAE3013 HIGHER AEROSPACE TRAINING

Higher Aerospace Training aims to place you on special industrial attachment with approved SAR-145 or SAR-147 organisations. You could work on special industrial collaboration projects, R&D-type projects or to represent Temasek Engineering School in relevant competitions or programmes specific to the aerospace industry. The project-driven training will challenge you to apply engineering concepts and skills to solve real problems as well as to design, build and deliver projects in accordance with competition specifications or goals.

EAE3014 LEAN PROCESSES

This subject introduces the principles of lean tools to eliminate waste, manage inventory and improve product flow in an aerospace organisation. Key concepts such as six-sigma, just-in-time (JIT) and process management prepare graduates to work effectively in the aerospace maintenance, repair and overhaul (MRO) environment.

EAE3015 AIRCRAFT STRUCTURES & COMPOSITES

This subject covers the general concepts of airframe structures and their construction methods. It aims to equip you with the theoretical airframe knowledge for attempting the CAAS M11A examination module. Topics include airworthiness requirements for structural strength, construction details of the fuselage, wings, empennage and flight control surfaces, methods of surface protection and structural assembly techniques. An introduction to composites and their fabrication and repair methods will also be covered.

EAE3016 AIRCRAFT AERODYNAMICS & SYSTEMS

This subject describes the operation of aeromechanical systems and various on-board systems that are responsible for the functionality of an aircraft. It aims to equip you with the theoretical aircraft systems knowledge for attempting the CAAS M11A examination module. Topics include operation and effects of flight control surfaces, air-conditioning and cabin pressurisation, instrument and avionic systems, electrical power generation, fuel and hydraulic systems, and other aircraft systems.

EAL1001 PRINCIPLES OF AERONAUTICAL SCIENCE

This subject provides you with a basic understanding of the fundamentals of flight operations. Topics covered include the theory of flight, elements of air navigation, aircraft systems and performance, flight physiology, aviation regulations and safety aircraft types and performance, as well as an overview of careers as commercial pilots.

EAL2002 MANAGEMENT FOR AIR CARGO

The subject provides 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 flow for cargo operations, as well as forecasts and future trends 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 profitability, air transport agreements and the regulatory framework of the airline industry, airline alliances, fleet and facilities planning, airline financing, 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 certification, aircraft accident and incident investigations, the removal of disabled aircraft, airport emergency systems, bird hazard management, airport support services and equipment, estate management and terminal landscaping. An overview of the future trends and challenges facing the airport industry will also be covered.

EAM1002 AIRPORT ADMINISTRATION

This subject covers the fundamental concepts and principles involved in the organisational, political and financial administration of modern international airports. Topics include airport performance, productivity and feedback systems (including benchmarks used for global airport rankings), and airport-related commercial management, public relations, corporate/business planning, organisational structures, financial and accounting strategies, as well as revenue and expense sources. The economic impact of airport operations will also be studied, and there will be an overview of the various airport ownership models.

EAM2001 GROUND HANDLING OPERATIONS & MANAGEMENT

This subject introduces you to the fundamentals of ground handling operations and management. Topics covered include passenger, ramp and baggage handling services, ground handling agreements, in-flight catering and apron control management and its regulatory requirements.

EAM2003 AVIATION SAFETY MANAGEMENT & HUMAN FACTORS

This module provides you with a broad understanding of aviation human factors and the role that human factors play in flight operations and safety. This will lead up to the elements of a safety management system, human factors within system safety, threat and error management, and principles of safety information systems. You will have an opportunity to embark on a problem-based learning approach to learn about the causes of aviation accidents, and how to prevent them.

EAM2005 AIRLINE FLIGHT OPERATIONS

This subject introduces you to the fundamentals of airline operations. Topics covered include crew planning and scheduling, punctuality management, fleet assignment, maintenance and engineering issues, seat inventory control, flight dispatching and irregular operations and airline contingency plans. The operations of corporate aviation enterprises and an overview of future trends and challenges facing the airline industry are also covered.

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 flight 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 provides an overview of the key facilities and systems found at the airside of an airport. Topics include airfield design, airport lighting systems and aircraft pavement. For the airfield design, you will learn about airport classification codes and design standard. In the airport lighting systems, you will learn the characteristics and components of airport lighting systems. As for the aircraft pavement, you will learn the pavement types, strength, runway surface and pavement management system (PMS).

EAT2003 AIRFIELD SYSTEMS 1

This module provides you with a basic understanding of the various air traffic control radar and communications systems used in the aviation industry, as well as the fundamentals of air traffic management. Topics include aviation meteorology, air traffic service (ATS)/flight crew organisational structures, practices and procedures, aerodrome, approach and area control services, aeronautical information services and telecommunication, aerodrome ground aids, as well as an overview of careers as air traffic controllers.

EAT2004 AIRFIELD SYSTEMS 2

This module provides you with advanced theoretical and practical skills in air traffic management. It allows you, after a suitable period of on-the-job training and training on local requirements, to acquire the required level of expertise to obtain an Aerodrome or Radar/Non-Radar Control Rating. Topics covered include air law, aeronautical ground aids/navigational aids, ATC-emergency procedures, procedures and techniques for managing air traffic, military ATC operations, and an overview of careers as operational air traffic controllers.

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, specifications 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 efficiency 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 efficient 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 scientific and engineering principles for the design of the system and the use of component performance measures to establish the effectiveness of such systems when applied across various business sectors.

EBD3001 SPACE PLANNING

This module covers design methodology such as design programme and design development. Key considerations include the building codes, flexible 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 Specifications, 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 office 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 includes 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 aims to provide an overview of the principles and concepts in project management and equip you with the theoretical foundation and skills in using project management tools. It emphasises the knowledge and practices which are widely applied in project management. Topics covered include the project management framework, project management processes and project management knowledge areas.

EBM2005 FIRE & LIFE SAFETY MANAGEMENT

This subject introduces the roles and responsibilities of a Fire Safety Manager for both commercial buildings and industrial premises. You will be exposed to the procedure adopted in running a fire command centre, the use of detection, protection and control systems, fire investigation and formulation of a fire emergency plan.

EBM2006 BUILDING MANAGEMENT SYSTEMS

This subject 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, as well as codes and regulations governing building services will also be covered.

EBM3003 FINANCIAL MANAGEMENT & FORECASTING

This module introduces key concepts of financial management and forecasting techniques. It focuses on the use of financial information in managing financial resources, capital investment evaluations, and the analysis of the profitability, liquidity and efficiency 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 retrofitting 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 significance to biological sciences with particular reference to carbohydrates, lipids, proteins and enzymes. This extends to the understanding of the functions of proteins and enzymes as well as protein synthesis and information pathways.

EBS2002 MOLECULAR GENETICS

This subject teaches both the theory and practical techniques of the E.coli system in molecular genetics. Topics include DNA structure, DNA replication, DNA transcription, translation, and DNA mutations. You will also be introduced to the different types of operons and study how these are regulated.

EBS2003 BIOMEDICAL PHYSICS

This subject builds the necessary foundation to initiate you into the biomedical physics discipline. Fundamental physics relevant to the field 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, fluid mechanics, and magnetic fields, with emphasis on biomechanics and sound waves. Other introductory topics include the field 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 analyzing 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 electromechanical 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.

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 online.

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.

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 provides 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 ecommerce applications. You will be taught three main areas: modelling, behaviour programming and display systems. You will work on a 3D web page which incorporates an interactive virtual world, standard HTML, text, sound, animation and graphics.

ECA3003 3D MODELLING

This subject equips you with different techniques and strategies to model 3D objects and generate 2D drawings using computer aided design software. 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.

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.

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 configuration, routing protocols and switching.

ECC2008 NETWORK ADMINISTRATION

This subject prepares you to be administrators of computer operating systems. It covers installation procedures, configuration 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 Configuration 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, and putting in place the systems, processes and control measures to protect information stored and carried in networks. You will be taught both the theoretical and practical aspects of network security, and also be exposed to the various threats and attacks on networks 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.

ECE1001 FUNDAMENTALS OF CLEAN ENERGY

This subject provides you with the skills and knowledge to meet the demands of the new economy that will rely on the primary energy source. The focus is on the renewable energy basics such as solar, hydrogen and fuel cell, bio-fuel, wind, tidal, geothermal, ocean, and hydropower. The importance and public benefits of renewable energy use and the environmental impact of renewable energy technologies will also be discussed.

ECE2001 ENERGY CONVERSION & STORAGE SYSTEMS

This subject first introduces the different energy conversion processes that can be used to harness energy from primary sources such as wind and bio-fuels, and to convert them into more convenient secondary energy forms, such as electrical energy. The different types of storage systems, such as rechargeable batteries, flywheel systems, and ultra-capacitors, as well as their characteristics and applications will also be covered.

ECE2002 RENEWABLE ENERGY

This subject aims to provide an in-depth training for the different types of renewable energy sources, such as, wind, bio-fuels and tidal. Their characteristics, including their advantages and disadvantages as well as their operating principles will be covered. The subject also reviews the current applications and the technology of these energy sources.

ECE2003 FUEL CELL DESIGN & TESTING

This subject presents fuel cell system descriptions and their designs. It covers the details of fuel cell component materials, fuel cell design, their construction methods and fuel cell system control associated with their balance of plant (BOP). It also includes the introduction of analytical instruments for characterisation of the component material properties, fuel cell operation and analysis of fuel cell system.

ECE2004 SOLAR CELL & SYSTEM

This subject introduces the operating principles, design, fabrication and application of solar cells. The topics include semiconductor properties, p-n junction diodes, solar cell design and characterisation, solar cell fabrication process technologies and power systems based on solar cells. The emphasis will be on silicon-based solar cells. The application of solar cells in a standalone and grid-connected power system will also be covered.

ECE3001 CLEAN ENERGY PROCESSES

This subject aims to provide an in-depth training covering the design aspects and manufacturing processes of the various clean energy-harnessing tools, such as the different types of photovoltaic, solar modules, fuel cells, the wind turbine, tidal barrages/fences/turbines. Their economical aspects will also be covered.

ECE3002 RENEWABLE ENERGY SYSTEM INTEGRATION

This subject introduces the integration of different types of clean energy sources and their impact on utility and the quality of electricity supplied. Different configurations of power electronics and controllers used to produce a quality source of electricity and how the excess electrical energy produced can be fed back to the utility will be covered. Other technical aspects such as distribution, safety and protection, metering and the concept of micro-grid will also be covered.

ECE3003 ENERGY EFFICIENCY & MANAGEMENT

This subject equips you with the macroscopic knowledge of the Building Management System (BMS) in a building, covering building management tools and energy management system, as well as the microscopic knowledge of how energy efficiency and management are associated with the different types and levels of power quality pollutions introduced by the individual units within the building. In this way, you will learn to identify and propose extensive solutions to achieve total energy efficiency.

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 service. The subject also covers the functions and requirements of the different media that are used in the communication process. Thus you will work on different communicative activities to apply the tools and strategies of integrated marketing communication.

ECS2003 ORGANISATIONAL COMMUNICATION

This subject prepares you for written and spoken communication in the world of work, focusing on intra- and inter-organisational communication. Group communication is also emphasised to enhance your 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 career by refining the technical writing skills that you have learnt in earlier Communication Skills modules, as well as providing you with the tools for an effective job search. Besides learning how to write a well-structured and coherent technical report for the workplace, you will also enhance your employability. You will learn the critical aspects of a job search, including skills analysis, writing resumes and cover letters, grooming and deportment, and interview skills.

ECT2001 CIRCUITS & CONTROL SYSTEMS

This subject 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 fieldbus 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 you with the basic theory and skills for 3D animation production. You will be equipped with an understanding of the fundamentals of how animation software tools work, and gain experience in completing a 3D animation production development cycle.

EDM1002 FUNDAMENTALS OF DIGITAL MEDIA PROCESSING

This subject equips you with the fundamental knowledge of image, texture and audio editing using media processing techniques. These techniques are necessary basic building blocks in interactive digital media content development. Basic video editing skills will also be taught. The subject emphasises practical-based learning, through which you will acquire the essential knowledge and skills.

EDM2003 FUNDAMENTAL 3D INTERACTIVE DIGITAL MEDIA

This subject provides you with the knowledge and hands-on experience in creating an interactive 3D application that simulates a product or process. The subject emphasises the importance of virtual prototyping in manufacturing and e-commerce application.

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 involves laboratory and project work, with emphasis on the processes involved. Through these processes, you are expected to integrate the knowledge you have acquired from subjects in previous semesters to solve digital media related problems. The project that you carry out will enable you to develop your skills in storyboard design, modelling/animation, interactive media, communications and project management, as well as your teamwork. Emphasis will be on creativity, teamwork, problem solving and practical skills. The nature of the project could either be software or hardware, or a combination of both.

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 work. These systems include stereoscopic displays, auto-stereoscopic displays, holographic displays, pinch gloves, wands, passive and active sensors. You will also learn to use and apply these applications in various scenarios.

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.

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.

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 specifications or goals.

EED3010 SPECIAL PROJECT 2

See "Special Project 1".

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 "Higher Engineering Skills 1".

EED3013 RAPID PROTOTYPING & 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.

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, field effect transistors and their applications. It also focuses on the fundamentals of operational amplifiers and their applications, and the rudiments of circuit troubleshooting and testing.

EEE1003 DIGITAL FUNDAMENTALS 1

This subject provides you with basic knowledge of digital electronics and circuits. Topics include number systems, operations and codes, logic gates, Boolean algebra and logic simplification, combinational logic, functional blocks, latches and flip-flops.

EEE1004 DIGITAL FUNDAMENTALS 2

This subject builds upon the fundamentals of digital electronics acquired in Digital Fundamentals 1. It introduces 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 amplifiers and their applications will be taught. You will learn how to use operational amplifiers to design clippers, clampers, comparator circuits and active filters. The applications of the 555 timer and voltage regulators will also be discussed.

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 specific circuit configurations and design concepts used in medical equipment, as well as the basic concepts of signal processing. The first part of the subject describes Op amp applications in bio-potential amplifiers, in filter designs and some design aspects of power supply used in medical devices. The topics covered in the signal processing portion include signal filtering, convolution, signal sampling, and correlation. Applications of signal processing related to bioelectric signals are used to provide a better understanding of these useful techniques.

EEE3001 ADVANCED ELECTRONICS

This subject provides you with the basic concepts of designing and using linear integrated circuits for different functions such as amplifiers, voltage-controlled oscillators and DC-DC converters. The design of attenuators and filters, and fundamentals of sensors and transducers will be discussed too.

EEE3004 POWER ELECTRONICS & DRIVES

This subject is an introduction to the study of machines, power semiconductor devices and their applications as power converters and motor drives. Topics covered include basic principles of DC and AC motors, fundamentals of controlled 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 will also introduce you to the safety requirements and regulations governing electrical distribution and installation.

EER2001 ELECTRICAL SYSTEM AND POWER DISTRIBUTION

This subject provides an overall operation of a power distribution network in the generation, transmission and distribution of electricity. You will also be trained in the designing of electrical systems (HV and LV) for effective and efficient delivery of electrical energy. These include the design and the sizing of different components such as system earthing, circuit breakers, fuses, cables, transformers, according to their respective industry standards.

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 (e.g., chain rule, product and quotient rules), and integration techniques (eg, substitution, use of the mathematical table, integration by parts, partial fractions decomposition) will also be covered.

EMA2001 ENGINEERING MATHEMATICS 3

This subject introduces you to ordinary differential equations and approximation using the Maclaurin series and Fourier series. You will learn how to formulate engineering problems using first and second order differential equations and to solve initial value problems using techniques such as Laplace transforms.

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 limits and continuity, infinite series, improper integrals, multiple integrals, higher order differential equations, 2D and 3D analytic geometry, and partial differentiation.

EMC2001 MICROCONTROLLER TECHNOLOGY

This subject provides you with a working knowledge of embedded systems. 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 bio-signals. Topics include electrodes and transducers, bio-potential measurements, amplifier basics, as well as differential and instrumentation amplifiers. Filter designs, noise and electromagnetic interference issues are also discussed.

EMD2002 MEDICAL DEVICES

This subject discusses the fundamentals of medical devices generally used in hospitals, such as the electrocardiograph, electroencephalograph, electromyograph, therapeutic devices, as well as life-saving and support devices. The essential principles of safety and reliability of medical devices are also covered.

EME1002 STATICS & STRENGTH OF MATERIALS

This subject 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.

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 & energy, impulse & 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 amplifiers and their applications are also taught.

EMI2008 IC PROCESS INTEGRATION

In semiconductor processing, process integration involves various aspects of wafer fabrication such as the flow 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 film transistor and pixel array, as well as LCD equipment and its manufacturing process. Other display technologies will also be covered.

EMI3004 MATERIALS SCIENCE

This subject focuses on the fundamental scientific 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 classifications 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 electromechanical Systems (NEMS) devices and applications of nanotechnology will also be covered.

EMI3008 IC LAYOUT & PHYSICAL DESIGN

This subject deals with IC physical design process and analogue layout. Topics covered include IC chip partitioning, floor planning, placement and routing. Clock trees, static timing analysis and power management are also included. Analogue layout will focus on improving yield and device matching.

EMP3001 MAJOR PROJECT

The Major Project gives you an opportunity to integrate and apply your knowledge in a practical learning situation. Besides research, design and project management skills, the emphasis will also be on innovation, creativity, teamwork and enterprise.

EPH3001 PRINCIPLES OF PHOTONICS

This subject explores the fundamentals of photonics theory including concepts and application of photonics. It delves into the laws of reflection and refraction, principles of wave optics (including interference, diffraction and polarisation), fundamentals of fibre optic theory, principles of lasers & laser safety, and the basics of holography.

EPH3002 OPTICAL COMMUNICATIONS

This subject delves into the laws governing transmission of light through fibres, classification of fibres, loss mechanisms and dispersion in fibres, optical modulation, multiplexing and 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 amplifiers, 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 reflection, self-assessment, team building, inquiry, creative thinking, peer-sharing and evaluation. You gain confidence in applying these skills through tutor-guided small group activities, self-reflective 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 includes an overview of information and knowledge management, strategies, structures and systems, techniques to process information, and security, moral & 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 beneficial 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 re-engineering, 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 (OO) 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 such 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 Unified Modelling Language), to the refinement of the models using normalisation techniques, as well as the learning of the database programming language, Structured Query Language (SQL).

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 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 fibre 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 you to the basic principles and techniques employed in digital communications. Topics that will be covered include signal analysis, sampling theorem, pulse code modulation, delta modulation, base-band 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. With these, you will be able to keep pace with advancement in mobile communications technologies, such as the 2G, 3G and 4G developments. The subject also introduces mobile radio communications. It will explain commonly used terminologies and the radio frequency spectrum too. Topics on mobile radio propagation include the environmental effects on the communication channel and how they relate to the transmission performance of a mobile network. Topics on cellular concept 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.

ETW3010 MULTIMEDIA NETWORK & SERVICES

This subject provides you with a practical systems-oriented view of broadband and broadcasting networks. You would be introduced to the fundamentals of various technologies and architectures, which include topics on data services based on cable and ADSL modems, as well as digital audio and digital video broadcasting. The laboratory sessions will place emphases on voice-over-IP, and application design for interactive TV and IPTV.

EWN3001 WIRELESS AREA NETWORK TECHNOLOGIES

This subject is designed to equip you with the essential knowledge and hands-on skills for practical wireless area network projects involving the current wireless devices in the industry. You will have opportunities to learn more about technologies such as WiFi, Bluetooth, and RFID.

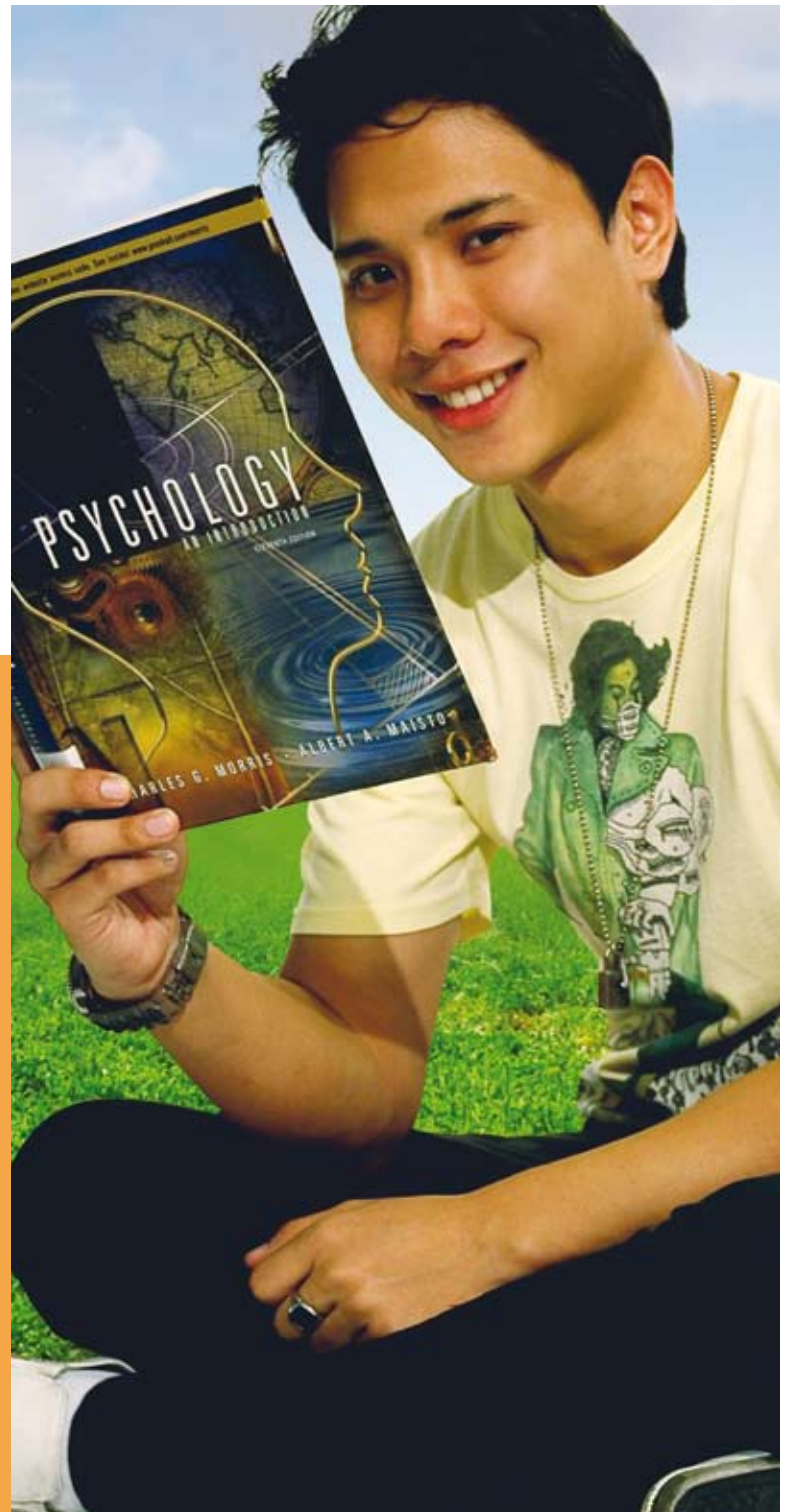
GCD1001/1002/1003 APPLIED PRINCIPLES FOR EFFECTIVE LIVING

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 disposition (ie, attitude, skills and knowledge) 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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The establishment of the Temasek Humanities & Social Sciences School (HSS) adds a new dimension to TP'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 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.

Gerontological Management Studies

NEW!



Who we have: A new generation of seniors, who are healthier, richer and better educated than their predecessors. They belong to the silver industry that is expected to be worth USD\$11 billion by 2015.

Who they need: Graduates with an in-depth understanding of the silver market to support the aspirations of this increasingly significant sector of the population.

If you enjoy working with people, and would like a career in helping our seniors to achieve fulfilling and productive lives, this is the course for you.

HSS is proud to present its second diploma programme in Gerontological Management Studies. As the population ages and people are living longer, there will be a dramatic growth in the opportunities that cater to the silver industry. This course is designed to meet specific needs of this rapidly growing industry.

The course offers a multi-disciplinary curriculum that is underpinned by a sound knowledge of gerontology with insights from sociology and psychology. You will be equipped to apply such knowledge of ageing issues in business settings.

The course provides you specialised training in four niche areas identified as growing sectors by the silver industry: leisure and travel, financial products

“ To facilitate the growth of this “silver industry”, it is important that future cohorts of workers are equipped with a good appreciation of ageing-related issues, including gerontology and sociology, and to complement this with a firm grounding in business skills.

*Charlotte Beck
Director
Elderly, Disability and Gambling Safeguards Division
Ministry of Community Development, Youth and Sports*

and services, assistive technology and health care and wellness. You will acquire a working knowledge of the relevant industries through practical training and project work.

CAREER OPPORTUNITIES

The course prepares you for a rewarding career in the emerging silver industry. Careers you can look forward to include business executives, tourism and leisure management officers, human resource and training executives, marketing executives, investment and financial planning officers, retail executives, programme management officers, managers of retirement village, sports and wellness consultants, and entrepreneurs. You are also well-positioned to take on other people-oriented careers that focus on providing products and services to the mature generation.

The scope of jobs available to you will not be limited to the silver industry since the business training provided will be valuable in all business environments.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, applicants must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music, Principles of Accounts.

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: min 1.0
TP Core Subjects	: 21 credit units
Diploma Subjects	
Core Subjects	: 73 credit units
Elective Subjects	: min 22 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
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
GCS1001	Fundamentals of Public Speaking	1	3
GCS1002	Academic Writing	1	2
GCS2001	Interpersonal Communication Skills	2	2
GCS3001	Professional Communication Skills	3	3
GIP3001	Student Internship Programme	3	8

Diploma Subjects - Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ANT1002	Basic Nutrition and Food	1	4
BAF1007	Basic Business Finance	1	4
BBS1001	Principles of Management	1	4
BRM1005	Marketing Fundamentals	1	4
GEM1008	Introduction to Gerontology	1	4
GEM1009	Introduction to Sociology	1	4
GEM1010	Lifestyle, Ageing & Well-Being	1	4
GEM1011	Applied Social Research	1	4
GEM1012	Programme Planning	1	4
GPS1010	General Psychology	1	4
GST1001	Principles of Statistics	1	4
GEM2000	Sociology of Ageing	2	4
GEM2002	Sociology of Work	2	4
GEM2003	Aged-Friendly Design	2	3
GEM2004	Ageing & Illness	2	4
GEM2005	Contemporary Issues in Ageing Societies	2	4
BMK3012	Sales Management	3	4
GEM3006	Major Project	3	6

Diploma Subjects - Elective Subjects*

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
ANT2008	Understanding Nutritional Concerns in the Elderly	2	4
BHT2012	Travel & Leisure Business	2	4
GEM2006	Death, Grief & Bereavement	2	3
GEM2007	Gender Issues in Later Life	2	3
GEM2008	Images of Ageing	2	3
GEM2009	Sociology of Emotions	2	3
GEM2010	Sociology of the Family	2	3
GEM2011	Social Memory	2	3
GEM2012	Sociology of Migrations	2	3
GPS2010	Health Psychology	2	4
BBS3005	Product Development & Innovation	3	4
BMK3007	Principles of Entrepreneurship	3	4
GEM3001	Leadership in Leisure Management	3	4
GEM3002	Aesthetics & Wellness	3	4
GEM3003	Physical Activities, Sports & Wellness	3	4
GEM3004	Recreation Therapy	3	4
GEM3005	Fundamentals of Financial Planning	3	4

*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.

Psychology Studies



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 bringing the best out of them, then look no further.

Psychology Studies has been designed to provide you with a broad foundation in the study of human behaviour and mental processes. Through the duration of the course, you will explore the major core topics in the study of psychology such as personality, developmental and lifespan psychology, industrial and organisational psychology and much more. You will learn that the study of psychology is not only just a theoretical discipline. In your study, you will discover that psychology has many exciting and meaningful practical applications in professional settings as well as in your individual lives to resolve problems and enhance the quality of life for you and people around you.

In addition to building a strong foundation in the essential areas of study within psychology, you can also look forward to opportunities to hone

“ I am happy to note that this... course, which equips graduates with skills and knowledge from the discipline of applied psychology... 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*

vital skills valued by employers, such as research design, creative and critical thinking, evaluative and effective problem solving, as well as other people-related skills.

This course will also prepare you for a variety of career paths. You will be provided with opportunities to apply psychological principles in various applied settings through individual electives or a concentration of specially selected electives. For instance, you may opt for electives in the areas of concentration such as human capital management, human and social services, or even educational and child psychology.

This unique blend of studies in psychology and areas of concentration, balanced with hands-on projects, will equip you with sound knowledge and practical skills in order to enhance your employability in today's competitive job market.

Thus, if you enjoy learning about people and designing processes to develop them, or if you consider yourself a hands-on problem solver with an aptitude for analytical work, then we want you in our course.

CAREER OPPORTUNITIES

Our graduates are poised to enter a variety of exciting career paths in human resource management, early childhood education, consumer research, advertising, marketing, as well as human and social services.

In addition, with a strong foundation in psychology, you are well prepared for further studies with advanced standing in renowned universities that will further enhance career opportunities. For example, 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.

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".

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, applicants must also have sat for at least one of the following subjects: Art/Art & Design, Business Studies, Combined Humanities, Commerce, Commercial Studies, Economics, Geography, History, Higher Art, Higher Music, Literature in English/Chinese/Malay/Tamil, Music, Principles of Accounts.

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

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	: 1.0
TP Core Subjects	: 19 credit units
Diploma Subjects	
Core Subjects	: 64 credit units
Elective Subjects	: min 34 credit units
Cross-Disciplinary Subjects	: min 9 credit units
Total Credit Units Completed	: min 126 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
GCD1001	Applied Principles for Effective Living (APEL 1)	1	1
GCD1002	Applied Principles for Effective Living (APEL 2)	1	1
GCD1003	Applied Principles for Effective Living (APEL 3)	1	1
GCS1001	Fundamentals of Public Speaking	1	3
GCS1002	Academic Writing	1	2
GCS3001	Professional Communication Skills	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	Applied Psychology Integrated Project 1	1	4
GPS1007	Research Methods in Psychology A	1	4
GST1001	Principles of Statistics	1	4
GPS2001	Research Methods in Psychology B	2	4
GPS2002	Perception & Cognition	2	4
GPS2003	Physiological Psychology	2	4
GPS2004	Developmental & Lifespan Psychology	2	4
GPS2005	Social Psychology	2	4
GMP3001	Major Project	3	6
GPS3002	Assessment & Personality	3	4
GPS3004	Applied Psychology Integrated Project 2	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Early Childhood Studies Elective Concentration^			
GEC1001	Principles, Practices & Issues in Early Years Education	1	3
GEC1002	Early Years Character Education	1	4
GEC1003	Early Years Language & Literacy Skills	1	4
GEC1004	Early Years Numeracy Skills	1	4
GEC1005	Early Years Environmental Awareness	1	2
GEC1006	Early Years Creative Expressions & Play	1	6
GEC2001	Early Years Classroom Management	2	4
GEC2002	Child Safety, Health & Nutrition	2	3
GEC2003	Family & Community Collaboration	2	4
GEC2004	Early Years Curriculum Integrated Project	2	4
GPS1009	Introduction to Counselling Psychology	1	3
GPS2016	Child Psychology	2	4
GPS3001	Psychology of the Exceptional Child	3	4

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Educational & Child Psychology Elective Concentration			
GPS1012	Educational Psychology	1	4
GPS1013	Introduction to Psycholinguistics	1	4
GPS2008	Learning & Motivation	2	4
GPS2016	Child Psychology	2	4
GPS3007	Psychology of the Exceptional Child	3	4
Human Capital Management Elective Concentration			
BBS2001	Human Resource Management	2	4
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
Human & Social Services Elective Concentration			
GPS1009	Introduction to Counselling Psychology	1	3
GPS1011	Psychology of Food, Eating & Body Image	1	3
GPS2010	Health Psychology	2	4
GPS2015	Psychology of Addictive Behaviours	2	4
GPS3003	Abnormal Psychology	3	4
General Psychology Electives			
GPS1003	Cross-Cultural Psychology	1	3
GPS1006	Psychology for Workplace Safety & Health	1	3
GPS2012	Human Factors Psychology	2	4
GPS3005	Forensic Psychology	3	4

Note:

- Elective concentrations and electives within the concentration are accurate at the time of printing and are subject to change.
- Not all elective concentrations and electives within the concentration will be offered every year and in all semesters.

^ Students who complete all electives within the Early Childhood Studies Elective Concentration may graduate with two diplomas (Diploma in Psychology Studies and Specialist Diploma in Early Childhood Teaching). For more details on this special dual diplomas programme, please visit us during our Open House or the Joint Admissions Exercise (JAE).

CROSS-DISCIPLINARY SUBJECTS

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

Subject Synopses

ANT1002 BASIC NUTRITION & FOOD

This subject provides you with a basic understanding of the human nutrition and dietary practices. 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.

ANT2008 UNDERSTANDING NUTRITIONAL CONCERNS IN THE ELDERLY

This subject provides you with the basic knowledge of food and nutrients, nutritional requirements and issues in the elderly. It includes an overview of steps involved in the planning and delivery of nutrition programmes. An introduction to the management of some diet related diseases common in the elderly will also be covered.

BAF1007 BASIC BUSINESS FINANCE

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

BBS1001 PRINCIPLES OF MANAGEMENT

This subject provides 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.

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.

BBS3001 HUMAN RESOURCE DEVELOPMENT

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

BBS3002 PERFORMANCE & COMPENSATION MANAGEMENT

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

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 also 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.

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.

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.

BMK3007 PRINCIPLES OF ENTREPRENEURSHIP

This subject covers the key principles of entrepreneurship. The early part of the course examines the traits of successful entrepreneurs. You will learn how to identify business opportunities and be given the opportunity to conduct field research 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 in sales management.

BRM1005 MARKETING FUNDAMENTALS

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

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 (Extrapersonal Effectiveness). APEL was specially developed for TP students with the aim to help nurture in them the dispositions (i.e., attitudes, skills, knowledge) towards the Principles for Effective Living, hence laying the vital foundation for their lifelong success. The principles introduced in this programme are largely derived from applied psychological studies.

GCS1001 FUNDAMENTALS OF PUBLIC SPEAKING

This subject aims to help you become confident speakers. It equips you with the techniques to develop, deliver and evaluate speeches appropriate to a variety of contexts, including both impromptu and prepared situations.

GCS1002 ACADEMIC WRITING

This subject aims to help develop your skills and confidence in writing for academic contexts. It takes you through the stages of the writing process i.e., from the planning through the development and production of academic papers.

GCS2001 INTERPERSONAL COMMUNICATION SKILLS

You will learn to understand and apply the skills of effective communication in a wide variety of contexts and situations. The curriculum covers self-awareness, personal and interpersonal power, attitudes, values and perceptions in communication, verbal and non-verbal strategies, the integration of emotional and intellectual intelligence, dealing with differences and the skill of working together. This subject provides a solid foundation for counselling, together with relevant skills to establish strong interpersonal relationships.

GCS3001 PROFESSIONAL COMMUNICATION SKILLS

This subject aims to hone your communication skills. Topics covered will include handling interviews, meeting skills, interpersonal skills and formal writing skills required in various forms of professional and career writing such as project proposals, application letters, resumes and more.

GEC1001 PRINCIPLES, PRACTICES & ISSUES IN EARLY YEARS EDUCATION

This subject provides an overview of early childhood care and education in Singapore. It provides opportunities for you to explore the various approaches and models of early childhood care and education, as well as the social dynamics of learning in Singapore's early childhood context.

GEC1002 EARLY YEARS CHARACTER EDUCATION

This subject equips you with valuable knowledge and skills that nurture inter-personal and intra-personal skills amongst young children in order that they become more resilient and successful learners.

GEC1003 EARLY YEARS LANGUAGE & LITERACY SKILLS

This subject helps you develop engaging lessons and activities in order to enhance the learning of English amongst young children.

GEC1004 EARLY YEARS NUMERACY SKILLS

This subject guides you in developing lessons and activities that enhances effective learning of numeracy amongst young children.

GEC1005 EARLY YEARS ENVIRONMENTAL AWARENESS

This subject helps you develop lessons that inculcate a sense of understanding of the world in young children. You will learn to develop lessons that will build important process skills amongst young children through engaging activities.

GEC1006 EARLY YEARS CREATIVE EXPRESSIONS & PLAY

This subject aims to help you nurture young children's creativity through a rich learning environment in art, music, drama, dance, as well as activities involving motor-skills. You will learn to develop lessons to provide experiences that will nurture expressiveness, creativity and imagination amongst young children.

GEC2001 EARLY YEARS CLASSROOM MANAGEMENT

This subject aims to impart basic effective teaching strategies in order to manage and guide children's behaviour within the classroom.

GEC2002 CHILD SAFETY, HEALTH & NUTRITION

This subject aims to help you understand the early childhood educator's role in providing an environment for the care and safety of the children. You will learn to manage areas of young children's nutrition, health, hygiene and safety. In addition, you will also be equipped with basic first aid skills and learn to understand as well as detect child abuse and neglect.

GEC2003 FAMILY & COMMUNITY COLLABORATION

This subject explores the dynamics of families and their role in the development of the child. The subject introduces strategies and resources to help strengthen relationships between home, community and centre/kindergarten.

GEC2004 EARLY YEARS CURRICULUM INTEGRATED PROJECT

This subject provides opportunities to design and develop developmentally appropriate classroom activities. You will learn to create and prepare learning programmes, centres, resources to enhance early years learning.

GEM1008 INTRODUCTION TO GERONTOLOGY

This subject introduces you to the theoretical perspectives and approaches to the study of ageing from various disciplines. It will examine the causes and consequences of ageing at the level of individuals and populations. This involves investigating the social, physical and mental changes humans undergo as they age, as well as the impact of the elderly population on social, economic and political institutions.

GEM1009 INTRODUCTION TO SOCIOLOGY

This subject introduces you to the key theoretical perspectives in Sociology. Through these theories, you will examine current and emerging social phenomena. From the systematic study of different social structures e.g. family, work, social control, gender and ethnicity, you will be able to apply sociological concepts to help you explain social life in societies.

GEM1010 LIFESTYLE, AGEING & WELL-BEING

This subject addresses issues relating to ageing and well-being. The concept of the quality of life is also examined. You will also examine the significance of social support networks amongst older persons, and its impact on their well being. The relationship between leisure and healthy ageing, the implications of continuous employment and retirement are also covered in this subject.

GEM1011 APPLIED SOCIAL RESEARCH

This subject provides a general understanding of the theory and practice of social science research and presents science as a powerful method of human thinking. The focus is to provide you with the necessary information to understand the importance of research in the field of social science and its applications to various settings. You will learn a systematic way of thinking and knowledge discovery known as scientific inquiry.

GEM1012 PROGRAMME PLANNING

This subject provides a foundation in programmes conceptualisation, development and production, covering topics such as programme design, programme management, programme evaluation and budgeting as well as staging of programmes.

GEM2000 SOCIOLOGY OF AGEING

This subject provides a sociological perspective on the process and experience of human ageing in modern society, while adopting a context-based approach that employs case studies. Topics include the demographic and political impact of ageing societies, historical and cultural perspectives on ageing, and the major theoretical approaches to the study of ageing. Various social policies and institutions that affect ageing will also be examined. These include social policies on health care, housing, retirement, death, living environments and social support for the aged.

GEM2002 SOCIOLOGY OF WORK

The social dynamics of workplace organizations and the practice of salaried employment in modern industrial societies will be analyzed in this subject. In addition, the historical and technological developments that have contributed to contemporary working environments will also be examined, along with the application of major theoretical perspectives on work. Finally, key social policy issues and controversies surrounding the workplace will also be contextualized through the use of local and international case studies.

GEM2003 AGED-FRIENDLY DESIGN

This subject will expose you to the design process of creating aged-friendly products and services. As the world population ages, it is vital that you be aware of the issues that confront ageing, and at the same time, demonstrate problem solving skills and foresight in tackling social and lifestyle issues. Through field trips and via observation and behavioural studies, you are facilitated to come out with innovative and creative solutions for the ageing generation. Innovative and original ideas can be considered for commercialisation under the Design for Ageing Centre.

GEM2004 AGEING & ILLNESS

This subject provides perspectives and issues relating to illness and growing old. Topics include avoidable illness, health concerns, ageing organ systems, principles of drug therapy, unique aspects of illness presentation, medical ethics, legal issues, community networking, and active maturing.

GEM2005 CONTEMPORARY ISSUES IN AGEING SOCIETIES

This subject will examine current issues that are evident in ageing societies around the world. You will gain an understanding of the transformations and challenges faced by ageing individuals and the state. The subject will also examine the ongoing debates on individual and societal responses to ageing issues. You will also learn about the ageing trends in both developed and developing countries.

GEM2006 DEATH, GRIEF & BEREAVEMENT

This subject will seek to understand the impact of death from a sociological point of view, particularly how it affects the people closely linked to a person who is either dying or has died. Such significant people include friends, parents, spouses and children, and even professional caregivers. In addition, this course will discuss the different cultural and religious meanings of death and bereavement in both Singapore and abroad. Finally, social policies and the organizations that play a part in coping with death, such as hospitals, nursing homes and hospices will be discussed.

GEM2007 GENDER ISSUES IN LATER LIFE

The various gender-based issues surrounding elderly men and women will be explored. This subject will examine the impact of ageing on the gender identity and roles of an ageing person. Special attention will be directed to the gender gap in longevity, emerging psychological and physiological issues, the impact of social change on gender relations in families, socio-economic issues among ageing men and women, and the influence of social policy.

GEM2008 IMAGES OF AGEING

This subject will examine the ways in which the aged have been portrayed at different times in history, leading up to the impact of contemporary mass media, literature and films. A key aspect of this course emphasizes the growing power of images in modern society. At the same time, views on the aged are seen to possess strong social and historical factors. Variables such as cultural beliefs, religion, social class, ethnicity, politics, industrialization and even social policy are argued to play a part in images of ageing.

GEM2009 SOCIOLOGY OF EMOTIONS

This subject will provide a sociological perspective on the construction of human emotions. It will analyze the relationship between various social forces and our experience and interpretations of them. Concepts such as 'emotional intelligence', 'face' and 'guilt', for example, will be examined closely with regard to their broader cultural and political settings. You will also learn how emotions are managed and negotiated in key social settings like the workplace and the family.

GEM2010 SOCIOLOGY OF THE FAMILY

The family has remained as a key social unit in societies, and has taken on various forms and meanings over time. You will learn about the dynamic interactions of the family unit with other societal institutions such as the state, religion, education and the media. You will also examine the issues facing the contemporary family. Topics will include childcare, employment, marriage, housing and various social policies involving the family.

GEM2011 SOCIAL MEMORY

Memories are a crucial part of a person's identity and how he or she finds meaning in life. The act of remembering is always selective, as key events in a person's life often influence the significance of what is remembered. This subject will give you an understanding of how various factors such as social class, education, religion and ethnicity influence this aspect of life, and the impact it has in shaping the worldviews of groups and communities. This subject will also include a special focus on the elderly within modern societies and their experience in constructing social memory.

GEM2012 SOCIOLOGY OF MIGRATIONS

Migration is exerting an increasingly significant impact upon various communities due to a rapidly globalizing world. This has resulted in large demographic and structural changes within many societies. In this subject, you will learn about the factors contributing to the phenomenon of migration as we see it today, and the implications of such social patterns. Specific migration-related issues that will be analyzed in this subject include ageing societies, poverty, foreign labour, crime, multiculturalism and national identity.

GEM3001 LEADERSHIP IN LEISURE MANAGEMENT

This subject will provide important theoretical and practical knowledge for use in leadership and management roles in the leisure and tourism industry. You will learn theories of leadership and the issues surrounding leisure management. You will have the opportunity to discover and reflect upon your own leadership style in various practical recreational settings.

GEM3002 AESTHETICS & WELLNESS

This subject provides an understanding of the products, services, issues, trends and behaviours of elderly consumers, with the aim to enhance their personal wellness in relation to their quality of life. You will also learn about the workings of the aesthetic and wellness industry, and how to tap into it effectively.

GEM3003 PHYSICAL ACTIVITIES, SPORTS & WELLNESS

This subject examines the impact of healthy lifestyles through sports and physical activities. It considers the relationship between physical activity and longer life. You will learn about the essential components of the concept of health and wellness. The subject also provides insights into the stages of human development and growth. Strategies to maintain one's physical health and emotional well-being will be discussed in this subject.

GEM3004 RECREATION THERAPY

This subject examines how recreation and leisure are used to help individuals with illnesses and disabilities, so that they may achieve better physical, mental, social, and emotional well-being. You will be exposed to different recreational activities for the elderly through various site visits. Through these, you will gain an appreciation of how therapeutic recreation can be used to enhance the well-being of the elderly.

GEM3005 FUNDAMENTALS OF FINANCIAL PLANNING

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

GEM3006 MAJOR PROJECT

The Major Project is intended to complete your training by providing a real-world experience to integrate and apply your knowledge in a practical learning situation. Besides research, design and project management skills, the emphasis will also be on innovation, creativity, teamwork and enterprise.

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.

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 scientific study of mental processes and human behaviour. Fundamental concepts, theories and methodology in the study of general psychology will be explored to enhance your understanding of the biological and social bases of behaviour.

GPS1003 CROSS-CULTURAL PSYCHOLOGY

This subject raises awareness and sensitivity to the influence of cultural variables on the nature and behaviour of individuals, their adaptations to different environments, as well as their relationships with others within and outside their own culture membership. You will examine the impact of culture on a variety of areas, from individual development to socialisation and work.

GPS1004 INDUSTRIAL & ORGANISATIONAL PSYCHOLOGY

This subject provides you opportunities to apply psychological knowledge, research methods and intervention strategies into industrial and organisational settings. You will explore both the theoretical and practical aspects of three primary areas, namely personnel, organisational and human factors psychology.

GPS1005 APPLIED PSYCHOLOGY INTEGRATED PROJECT 1

Psychology is not just a theoretical subject but has valuable practical applications to issues in the management of human affairs and the remediation of such problems. This subject allows you to explore the various fields in psychology and apply psychological knowledge in order to improve quality of life for the individual or organisation in various applied settings.

GPS1006 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.

GPS1007 RESEARCH METHODS IN PSYCHOLOGY A

This subject builds upon your foundational understanding of statistical concepts and data analysis methods. The subject will introduce knowledge, skills, techniques, as well as provide practical hands-on experience so that you will be equipped to conduct basic empirical research in psychology and the social sciences.

GPS1009 INTRODUCTION TO COUNSELLING PSYCHOLOGY

This subject provides opportunities for you to explore the fundamentals of counselling as well as discuss the primary theoretical perspectives and contemporary issues that influence the counselling profession. You will be equipped with helping skills that you can actively apply into helping people around you.

GPS1010 GENERAL PSYCHOLOGY

This subject provides you with an introductory perspective and understanding of psychology as a scientific study of mental processes and human behaviour. Fundamental concepts and theories in the study of general psychology will be explored to enhance your understanding of the internal and external bases of human behaviour.

GPS1011 PSYCHOLOGY OF FOOD, EATING & BODY IMAGE

This subject explores modern society's concern over physical appearance and the resultant effects of obsession with dieting, eating disorders, as well as body shape and size.

GPS1012 EDUCATIONAL PSYCHOLOGY

This subject provides an overview of psychological principles and the relationship with learning and thinking, instruction, effective teaching pedagogies and classroom management in order to facilitate an optimal environment for human growth and development.

GPS1013 INTRODUCTION TO PSYCHOLINGUISTICS

This subject explores the relationship between language and the processes of the human brain and mind. You will explore psycholinguistic theories of language and processing, in order to learn how we acquire and comprehend language, as well as produce spoken speech.

GPS2001 RESEARCH METHODS IN PSYCHOLOGY B

The subject addresses more complex research questions through a variety of research designs and statistical analysis techniques. With the use of statistical software, you will have opportunities to apply knowledge, skills and techniques to analyse and interpret data from simple and complex experiments.

GPS2002 PERCEPTION & COGNITION

This subject explores two main thematic areas of human information processing, namely, perception and cognition. You will explore topics such as sensory perception, attention, learning and memory in order to enhance your understanding of how human beings perceive and process information.

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 sensory systems.

GPS2004 DEVELOPMENTAL & LIFESPAN 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 such 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.

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.

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 work performance and develop effective strategies in human-machine interfaces.

GPS2015 PSYCHOLOGY OF ADDICTIVE BEHAVIOURS

This subject discusses the psychological and social aspects behind addictive habits. You will explore how and why an individual engages in physical addictions (e.g., alcohol and drugs) and psychologically compulsive behaviours (e.g., gambling).

GPS2016 CHILD PSYCHOLOGY

This subject focuses on the major developmental issues related to the physical, cognitive and psycho-social development of a child. You will gain knowledge and understanding of why children think and behave the way they do, as well as apply theoretical understanding on nurturing the development of young children.

GPS3002 ASSESSMENT & PERSONALITY

This subject introduces the principles and techniques of psychological assessment. Underlying many psychological assessments is a theoretical position about personality. The subject examines how aspects of personality are theoretically operationalised and measured to enhance our understanding of relationships between personality theories and assessment. This hands-on subject provides opportunities to explore the application of tests in varied settings.

GPS3003 ABNORMAL PSYCHOLOGY

This subject explores concepts and issues surrounding abnormal behaviour and illnesses. You will explore major theories on how physiology, cognition, developmental, social and other issues influence behaviour. You will also be provided opportunities to explore assessment tools as well as gain an overview of intervention methodologies and techniques commonly used in maladaptive behaviours and psychological disorders.

GPS3004 APPLIED PSYCHOLOGY INTEGRATED PROJECT 2

Psychology is not just a theoretical subject but has valuable practical applications to issues in the management of human affairs and the remediation of such problems. This subject builds on skills and experience gained from earlier project work-related subjects such as Applied Psychology Integrated Project 1. More opportunities will be provided for you to explore the various fields in psychology and apply psychological knowledge in greater depth.

GPS3005 FORENSIC PSYCHOLOGY

This subject examines the role of psychology in forensic. You will be introduced to theories & psychological perspectives leading to criminal behaviour. The subject also explores the role of a psychologist in dealing with such behaviour as well as the relationship between the legal system and psychology, the mental health system, mental illnesses and criminal conduct.

GPS3007 PSYCHOLOGY OF THE EXCEPTIONAL CHILD

This subject focuses on individual differences in children. You will explore areas such as the emotional, social and learning characteristics of individuals who are exceptional, and gain a deeper understanding of the issues that impact the lives and behaviour of these individuals.

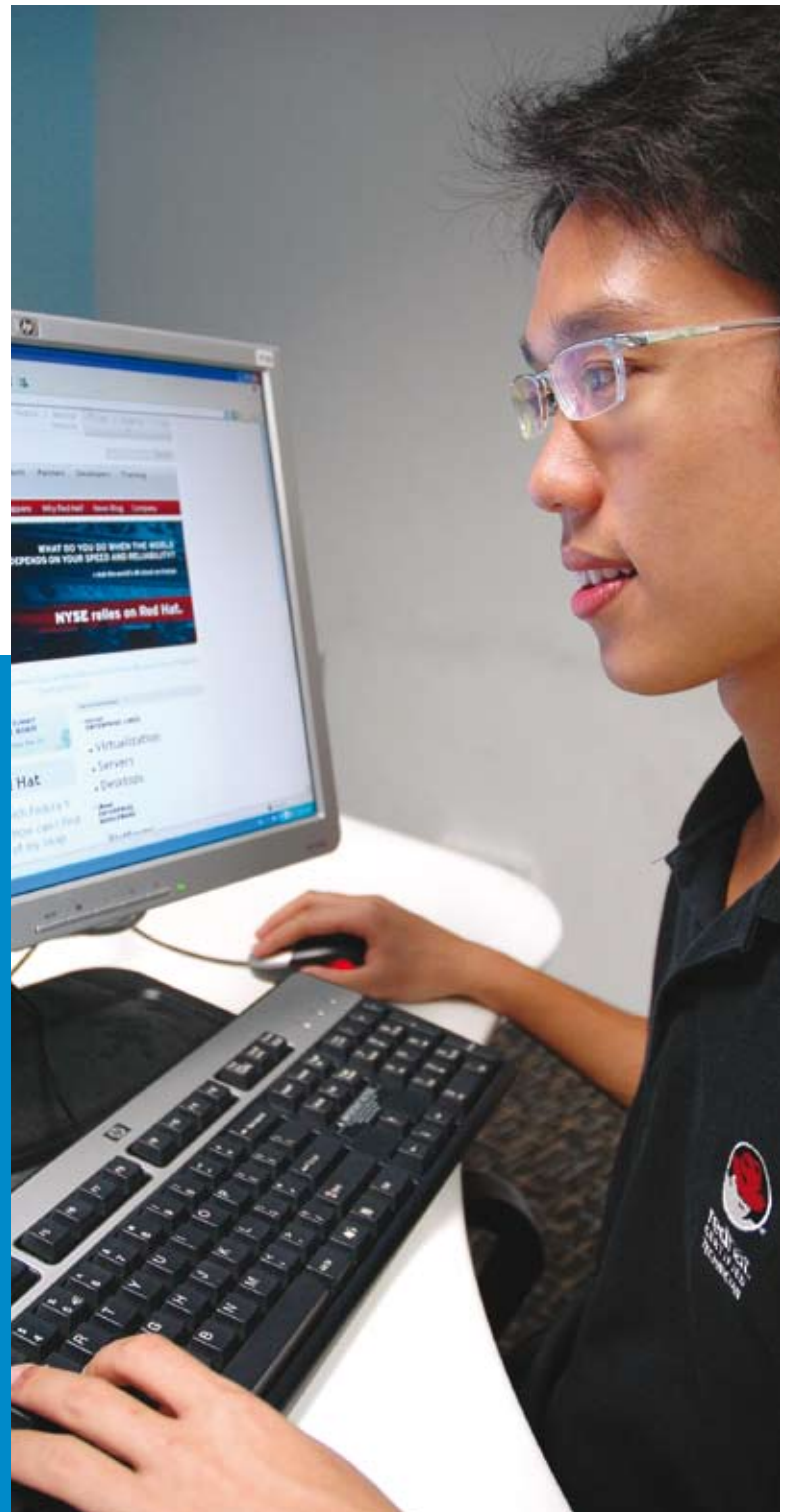
GST1001 PRINCIPLES OF STATISTICS

The use of empirical evidence and statistical analysis is crucial in the field of social sciences (e.g., psychology, sociology and education). This subject provides you with a basic understanding and use of statistical concepts in data analysis. Concepts such as descriptive and inferential statistics will be introduced.

Temasek Informatics & IT School

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293	Game & Entertainment Technology
297	Information Technology
301	Interactive Media Informatics
305	Mobile & Wireless Computing
309	Subject Synopses



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 confidently 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 find 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 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-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-BUSINESS OBJECTS BUSINESS INTELLIGENCE CENTRE

This centre has been established in collaboration with Business Objects, an SAP company, aiming to facilitate engagement in industry projects. It hosts Business Objects Business Intelligence suite of software that enables students to learn the processes of data integration, query and reporting, online analytical processing, and statistical analysis to help companies make better decisions.

TP-HP SOFTWARE QUALITY ASSURANCE CENTRE

This centre has been established in collaboration with Hewlett-Packard Singapore Pte Ltd. It is equipped with the latest HP Quality Assurance

software for in-house and industry projects. The centre also employs the latest methodologies and best practices to develop core competencies in software quality assurance.

TP-IBM CENTRE FOR IT SECURITY

This centre has been established on an IBM security framework and technology which provides training to students in the most current IT security industry and technology trends, providing our students with an environment that simulates a real life work environment. The centre also promotes industry collaboration by allowing students and staff to undertake relevant industry projects, research and development involving security technology.

TP-MICROSOFT DIGITAL MEDIA SOLUTIONS CENTRE

TP and Microsoft have jointly set up this special digital media centre to meet the needs of industry for manpower and solutions in Interactive Digital Media. This centre focuses on the areas of solutions exploration, development, testing, review and proof of concept. Students and staff will gain competency in the latest Microsoft technologies and be able to engage with industry on projects that relate to interactive media and game development.

TP-REUTERS FINANCIAL RISK MANAGEMENT CENTRE

This centre is equipped with state-of-the-art Reuters information systems. With Reuters premium financial information terminals and a fully integrated front-to-back solutions facility, Temasek Polytechnic students have the unique opportunity to learn in a live financial market environment that familiarises them with investment banking and risk management operations.



COMPUTER AND NETWORK SECURITY LABORATORY – CENTURION CENTRE

This centre provides a flexible 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, identification management servers, configure security policies, implement secured e-business transactions, set up an experimental Public Key Infrastructure and perform system confidentiality tests using encryption/decryption tools.

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.

Cyber & Digital Security



The Internet has evolved greatly, connecting businesses and social environments in a seamless way. In this world of online interaction, users are exposed to threats targeting their financial and personal data. For Singapore to remain a hub for international investments, it is absolutely vital that IT systems in organisations are not compromised by online criminal activities. Cyber

security has therefore become one of the most important challenges businesses are facing today.

This course will equip you to become an IT security professional with the skills to protect the critical information assets of individuals and enterprises. As an IT security professional, you will be in an entrusted position to combine professional integrity with technical tenacity. Your security acumen will be honed with business process skills, so that you will be able to audit and design security policies, apply legal aspects of IT and enhance access controls through the use of biometric technologies such as fingerprint and iris scans.

You will receive a firm foundation in IT fundamentals and develop critical thinking,

“ 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*

communication and problem-solving skills. As you progress, you will learn how to identify and detect any misuse of computers, design counter measures against criminal intrusion, perform penetration

testing and ethical hacking to effectively secure systems for businesses. You will learn how to investigate compromised systems and conduct computer forensics.

At our TP-IBM Centre for IT Security you will be able to use state-of-the-art facilities for hands-on practice in defending and protecting systems. Working on real-life case studies and simulated cyber attacks, you will learn to evaluate the best practices and security standards adopted by industries and government organisations. This will enable you to identify effective security solutions. You will also develop business skills through subjects such as project management, entrepreneurship and the marketing of security solutions.

The Student Internship Programme and Major Project in the final year will allow you to showcase your knowledge and skills. You will be able to integrate all that you have learned into a solution package incorporating real-life practice with hands-on industry exposure. The course also prepares you to attain professional certifications in networking, open source technology and IT security which are highly sought after by the industries. These will position you well as an IT security professional in an industry with a global outreach and immense opportunities.

CAREER OPPORTUNITIES

Security is a major concern among all organisations. In particular, governments and industries worldwide have forecasted a shortage of and high demand for infocomm security professionals. The Singapore government is in fact investing in a security master plan to fight cyber threats and to develop a pool of IT security professionals. You can expect good employment

prospects with local and multinational businesses, governments, financial and banking institutions, and consulting firms as IT security specialists, IT security auditors, network and systems specialists, and IT security product developers and solution providers.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, 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 of grade 6 for the Bahasa Ingggris (English Language) subject.*

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	: 87 credit units
Elective Subjects	: 8 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
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
CID1C08	Introduction to Human Computer Interaction	1	3
CCD1C01	Basic IT Security	1	4
CCD1C02	Enterprise Networking	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CFI1C07	Database Information 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
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
CCD2C06	Servers Administration & Security	2	4
CCD2C07	Secure Web Applications	2	8
CIM2C06	Database Administration & Security	2	4
CMP3601	Major Project	3	10

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCD2E01	Identity & Authentication Technologies	2	4
CCD2E02	Applied Cryptography in E-Services	2	4
CFI2C03	IT Project Management	2	4
CFI2E01	IT Outsourcing	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
CMC2E04	Tourism Informatics	2	4
CMC2E06	VOIP System & Application	2	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's Infocomm Technology Roadmap, iN2015, highlights the demand for professionals who possess both technical and business expertise. The banking and finance sector has been identified as one of the key areas of focus. Join us to be trained as a techno-strategist, possessing a strong understanding of information technology and business processes.

This course equips you with the knowledge and skills to be technically and financially savvy. You will learn how banks and financial institutions are structured and how they operate in the global financial 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 financial 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 as well as private banking.

“ With dual skills in IT banking processes and a keen knowledge of key financial systems, students from this course will be able to support investment banking and risk management operations as well as contribute as business analysts skilled in the banking domain. The training these students receive in Thomson Reuters products, including the fully integrated front to back office solutions, enables them to help customers become more efficient and equips them to lead in the evolution of the global financial market.

*Edward Haddad
ASEAN, Pacific and South Asia Managing Director
Thomson Reuters*

In the course of your studies, you will learn about financial 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 Financial Risk Management Centre is equipped with state-of-the-art investment, financial and risk management data and systems. They enable you to understand the life cycle of an investment deal from inception to settlement. Our TP-Business Objects Business Intelligence Centre is equipped with the latest software that helps organisations make better decisions.

In your final year, you will get hands-on experience through attachment to banks and financial 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 unique dual skills in the finance and banking domain and IT, you are well positioned to take on careers in financial institutions, and business and IT consulting firms. You can look forward to being a financial systems consultant, business intelligence analyst, investment analyst or financial products settlements specialist.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, 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 of grade 6 for the Bahasa Inggeris (English Language) subject.*

Note: Applicants with complete/full Colour Appreciation Deficiency are not eligible

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

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
CID1C08	Introduction to Human Computer Interaction	1	3
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
CFI1C06	Information Systems & Office Fundamentals	1	3
CFI1C07	Database Information Systems	1	4
CFI1C08	Financial Economics	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT2C10	Web Programming	2	4
CFI2C02	Business Intelligence Systems	2	4
CFI2C03	IT Project Management	2	4
CFI2C04	Quality & Service Management	2	4
CFI2C07	Commercial Off-The-Shelf Implementation	2	3
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			
CFI2P14	Foreign Exchange & Money Market Processing	2	4
CFI2P15	Fixed Income & Equity Securities Processing	2	4
CFI2P16	Derivatives & Structured Products Processing	2	4
CFI2P17	Portfolio Performance Management	2	4
Banking Option			
CFI2P24	Retail Banking Processing	2	4
CFI2P25	Customer Relationship Management Systems	2	4
CFI2P26	Private Banking	2	4
CFI2P27	Corporate Banking Processing	2	4
CFI2P28	Credit Risk Management	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



This is possibly the most exciting time for the video games industry. According to the Entertainment Software Association (ESA) Reuters, 65 percent of US households play computer and video games; worldwide sales of Nintendo's Wii have exceeded 13 million units since Nov 2006. At the other end of the market, there has never been such a strong following for smaller, independent companies such

as locally-based Nabi Studios, makers of online game Toribash.

This course teaches you the skills to create your own games from the initial design, through programming, to the creation of artwork and sound. 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 find 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, artificial intelligence, 3D graphics and game algorithms.

“ 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*

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, Artificial Intelligence (AI) 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.

CAREER OPPORTUNITIES

Singapore has identified interactive and digital media as one of its key research and development areas. You will graduate with the skills to fill the following types of positions: game content developer, mobile game software engineer, graphics software engineer and multimedia application developer.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, 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 of grade 6 for the Bahasa Inggeris (English Language) subject.*

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	: 85 credit units
Elective Subjects	: 8 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: 123 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
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
CF1C07	Database Information Systems	1	4
CGE1C01	Introduction to Computer Games	1	4
CGE1C02	Game Math & Physics	1	4
CGE1C03	Object-Oriented Game Programming	1	8
CIC1C05	Computer Architecture	1	4
CID1C02	Web Design	1	4
CID1C08	Introduction to Human Computer Interaction	1	3
CIT1C05	Problem Solving & Programming	1	4
CMA1C01	Computing Mathematics 1	1	3
DNT1310	Visual Literacy & Storyboarding	1	4
CGE1C05	Game Design	1	3
CGE2C06	Game Development	2	3
CGE2C09	Software Engineering	2	4
CGE2C10	Data Structures & Algorithms	2	4
CGE2C04	Introduction to Game AI	2	4
CGE2C08	Online Game Development	2	4
CIC2E01	Introduction to 3D	2	4
CGE3C01	The Business of Computer Games	3	4
CGE3C03	Game Audio	3	3
CMP3701	Major Project	3	10

Diploma Subjects - Elective Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CGE2E02	Graphics Programming	2	4
CGE2C05	AI-Based Game Design & Development	2	4
CID2P14	3D Visualisation & Animation	2	4
CGE3C02	Mobile Game Programming	3	4

CROSS-DISCIPLINARY SUBJECTS

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

Information Technology



It's hard to imagine spending a day without instant messaging, Facebook, Flickr, YouTube, blogs, eBay or Google Earth. While it is cool to be a savvy user of these applications, why not consider joining the ranks of their creators and be counted amongst the trailblazers in the IT world? In this course, you will be equipped with industry-relevant knowledge and skills to make a difference to people and organisations with the solutions that you develop.

This course prepares you to be an IT software professional who is able to effectively lead, define, design and implement business improvement projects in various key sectors such as government, education, banking, finance, sales and marketing, as well as other key areas.

You have two possible options of study in this course - the Enterprise IT option, which focuses primarily on analysis, design, development, and integration of enterprise technology to enhance business competitiveness, and the Enterprise Business Informatics option, which focuses on customising and integrating established enterprise business software solutions (such as SAP) with other new or legacy systems. You will also take elective subjects which cover various key business domains which have become essential knowledge for an IT professional. With these capabilities, the world can indeed run on your code sooner than you think!

“ 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*

In your final 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 and is well on the way towards achieving its goal of creating an additional 80,000 infocomm jobs by 2015. As such, your employment prospects are very good. You will be able to fill positions in government organisations, software houses, large multi-national companies, banks, consultancy firms, insurance companies, etc, in areas such as project management, software design, development and consultancy. You will also be well-equipped to be a technopreneur. You may also further your studies at a wide range of universities that offer our graduates advanced standing.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, 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 of grade 6 for the Bahasa Inggeris (English Language) subject.*

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	: 67 credit units
Elective Subjects	: 8 credit units
Option Subjects	: 20 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
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
CID1C08	Introduction to Human Computer Interaction	1	3
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CID1C02	Web Design	1	4
CIT1C08	Fundamentals of Business Information Systems	1	4
CIT1C05	Problem Solving & Programming	1	4
CGE1C04	Higher Object-Oriented Programming	1	8
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CGE2C10	Data Structures & Algorithms	2	4
CGE2C11	Object-Oriented Analysis & Design	2	4
CFI2C05	Database Systems	2	4
CGE2C09	Software Engineering	2	4
CIT2C09	Client-Server Application Development	2	4
CMP3102	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Enterprise IT Option			
CIT2P31	Enterprise Web Development & Testing	2	8
CIT2P32	Enterprise Security & Application Management	2	4
CIT2P33	Enterprise Solutions & Services Management	2	4
CIT2C07	Business Integration Technologies	2	4
Enterprise Business Informatics Option			
CIT2P41	Enterprise Business Processes & Systems	2	8
CIT2P42	Business Solution Integrated Project	2	4
CIT2P43	Enterprise Business Systems Integration	2	4
CIT2P44	Dynamic Web Application Development	2	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
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
CIT2E07	Open Source Application Development	2	4
CIT2E08	Mobile Device Programming	2	4
CMC2E04	Tourism Informatics	2	4
CMC2E06	VOIP System & Application	2	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



Interactivity is highly sought after in online games, websites, business applications, educational learning packages and almost any Internet application you can think of. 3D modelling and animation, videos, digital graphics interfaces, immersive 3D environment are rapidly changing the landscape of the media industry.

In this course, you will get the chance to explore a variety of digital media tools and technologies. You will be trained in design and IT fundamentals so that you can create vibrant and practical applications for people and organisations. You will 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 Rich Media Commerce, 3D Digital Entertainment or Edumatics. All of these will prepare you for interesting, long term careers in the e-commerce, digital media and the education sector.

“ 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*

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 projects while studying at TP. These include an interactive game application for the Ministry of Finance called “If I were the Finance Minister” and a photo heritage site for Singapore’s National Day – just to name a few. Two of our recent graduates, were awarded Infocomm Development Authority of Singapore’s National Infocomm Scholarship, while one of our senior students, was selected for an internship at the prestigious Massachusetts Institute of Technology, USA.

We believe that creative minds inspire creative works. With us, you have ample opportunities to discover and display your creativity.

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 officer, content developer, educational technologist and educational applications developer.

APPLICATION

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

MINIMUM ENTRY REQUIREMENTS

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

To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, 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 of grade 6 for the Bahasa Ingggris (English Language) subject.*

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	: 80 credit units
Option Subjects	: 12 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 122 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
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
CIC1Z01	Computer Systems	1	4
CID1C02	Web Design	1	4
CID1C04	Multimedia Project 1	1	4
CID1C09	Visualisation & Digital Techniques	1	4
CID1C11	New Media Development & Trends	1	4
CID1C12	Animation Programming	1	4
CIT1C05	Problem Solving & Programming	1	4
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CFI2C03	IT Project Management	1	4
CFI1C07	Database Information Systems	2	4
CIC2E01	Introduction to 3D	2	4
CID1C10	Motion & Sound	2	4
CID2C03	Human Computer Interaction	2	4
CID2C05	Multimedia Project 2	2	4
CID2C07	Interactivity & Interface Design	2	4
CID2C08	Interactive Programming	2	4
CIT2P28	Web Application Development	2	4
CMP3501	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
3D Digital Entertainment Option			
CID2P12	3D Production Foundation	2	4
CID2P13	3D Special Effects	2	4
CID2P14	3D Visualisation & Animation	2	4
Rich Media Commerce			
CID2P41	Content Management System	2	4
CID2P43	New Media Strategy and Analytics	2	4
CIT2P42	Rich Media Application Development	2	4
Edumatics Option			
CID2P35	Introduction to General Pedagogical Approaches for Learning	2	4
CID2P36	Understanding Instructional Design	2	4
CID2P37	Building Learning Activities	2	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



Mobile and wireless computing encompasses the use of wireless technologies to access information from a wide range of mobile devices. The rapid developments in this field have enabled people to become increasingly mobile and yet stay connected with others anytime, anywhere. From making payments wirelessly to tracking patients within hospitals, mobile and wireless

computing cuts across individual, business and social domains. Immerse yourself in some of the most exciting technologies and use them to enrich the lives of people.

This course has been designed to produce a new breed of IT specialists who are well versed in network infrastructure and its management and are capable of developing mobile applications and services on top of the infrastructure. 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 specific skills required for the management of IT

“ This course provides students with a strong foundation to contribute in this emerging area. As a leader in providing enterprises in Asia Pacific with innovative business communications solutions, Avaya is confident that this course will produce business technologists who will be in high demand globally.

*Mr Kam-Khuen Chan
Chief Operating Officer
Avaya Singapore Pte Ltd*

systems as well as specified skills required for designing and developing mobile applications that can enhance the lives of people. You will be able to specialise in either Mobile Solutions or IT Service Management.

In your final year, you will 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.

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 such as wireless systems specialist, associate infrastructure analyst, mobile system development specialist, IT customer service executive, IT operations specialist, network administrator/engineer, computer systems & server administrator.

APPLICATION

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MINIMUM ENTRY REQUIREMENTS

English Language (EL1)*	Grades 1 - 7
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To be eligible for selection, you must have also sat for at least one of the following subjects: Additional Combined Science, Additional Science, Biology, Chemistry, Combined Science, Computer Studies, Design & Technology, Engineering Science, Food & Nutrition, General Science, Human & Social Biology, 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 of grade 6 for the Bahasa Inggeris (English Language) subject.*

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	: 83 credit units
Option Subjects	: 12 credit units
Cross-Disciplinary Subjects	: 9 credit units
Total Credit Units Completed	: min 125 credit units

Course Structure

TP Core Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
CCS1001	Effective Interpersonal Communication	1	2
CCS1002	Communication in the Workplace	1	2
CCS1003	Information Literacy for Effective Communication	1	2
CCS1004	The Essentials of Persuasive Presentations	1	2
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
CID1C08	Introduction to Human Computer Interaction	1	3
CMA1C01	Computing Mathematics 1	1	3
CMA1C02	Computing Mathematics 2	1	3
CF1C07	Database Information Systems	1	4
CIC1C05	Computer Architecture	1	4
CIC1C06	Data Communications & Networking	1	4
CID1C02	Web Design	1	4
CIT1C05	Problem Solving & Programming	1	4
CIT1C06	Object-Oriented Programming	1	4
CMC1C03	Introduction to Wireless Technology	1	4
CCD2C06	Servers Administration & Security	2	4
CGE2C10	Data Structures & Algorithms	2	4
CMC2C10	Server Side Software Development	2	4
CMC2C11	Mobile and Wireless Networking	2	4
CMC2C12	Converged Networking	2	8
CMC2C13	Network Management	2	4
CMC2P23	Internetworking Technologies	2	4
CMC3P22	Mobile and Wireless Security	3	4
CMP3401	Major Project	3	10

Diploma Subjects - Option Subjects

SUBJECT CODE	SUBJECT	LEVEL	CREDIT UNITS
Mobile Solutions Option			
CGE2C11	Object-Oriented Analysis & Design	2	4
CMC2P11	Mobile System Development	2	4
CMC2P31	Mobile Usability Design	2	4
IT Service Management Option			
CCD2C05	IT Security Management & Audit	2	4
CMC2P41	IT Infrastructure Management	2	4
CMC2P42	IT Service Desk Management	2	4

CROSS-DISCIPLINARY SUBJECTS

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

Subject Synopses

BAF1007 BASIC BUSINESS FINANCE

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

BAF2006 FUNDAMENTALS OF INVESTMENT

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

BLM2007 LEGAL ASPECTS OF IT

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

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.

CCD1C02 ENTERPRISE NETWORKING

This subject covers the enterprise networking concepts. Routing and switching, wireless architecture and their applications in an enterprise environment will be discussed. You will learn the knowledge and skill to design, install and configure enterprise networks.

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 internet work.

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 traffic capture and analysis will also be discussed and investigated for the tracing of specific information and source of attacks.

CCD2C05 IT SECURITY MANAGEMENT & AUDIT

This subject aims to familiarise you with the various IT security policies processes and procedures, as well as best practices in industry and government. You will learn about the associated standards for risk management and the management of IT security. You will also learn how to plan, execute, report and follow up on an information security management system audit.

CCD2E01 IDENTITY & AUTHENTICATION TECHNOLOGIES

This subject covers basic elements of identification 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 identification and authentication.

CCD2C06 SERVERS ADMINISTRATION & SECURITY

This subject covers the concept and techniques required to configure and administer a typical networked server using common operating systems in the industry. Topics include installation of a server system, configuration of devices, disks and file systems with security configuration of Local Area Network (LAN) and 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.

CCD2C07 SECURE WEB APPLICATIONS

This subject aims to provide you with a realistic overview of the technologies, processes and challenges involved in developing secure web applications. At the end of the subject, you would have experienced a complete software development life cycle of design, develop, implement and maintenance. You would also have learnt the techniques and industrial good practices that are required to build a secure web application.

CCD2E02 APPLIED CRYPTOGRAPHY IN E-SERVICES

IT is now being leveraged by the public and private sectors to administer services electronically. This subject compares the various cryptography methods and provides an understanding of the underlying cryptographic requirements for electronic systems. The subject will also discuss the legality and legitimate issues of digital signatures applied in the e-services context.

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 conflicts 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 financial 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 definition, 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 definition of user requirements and to design an appropriate information system from the requirement specifications, using appropriate methods, tools and techniques.

CFI1C06 INFORMATION SYSTEMS & OFFICE FUNDAMENTALS

This subject introduces the information systems framework and the critical role of the usage of Information Technology in business as well as the ethical issues arising from the use of IT. It also introduces you to the essential office skill set that professionals working in the financial services industry would require.

CFI1C07 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.

CFI1C08 FINANCIAL ECONOMICS

This subject will provide an understanding of the major aspects of financial intermediation, the national economy, and the overall financial environment. It will introduce the basics of economic theory and include examples of the application of economics to banking and finance.

CFI2C02 BUSINESS INTELLIGENCE SYSTEMS

The subject introduces you to concepts and techniques of turning raw data into information to help companies make better decisions in their businesses. You will learn to acquire, cleanse, enhance and transform such data to prepare for analysis. Data mining and data warehousing concepts as well as principles and applications of data warehousing and data mining will be introduced.

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 configuration 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.

CFI2C05 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.

CFI2C07 COMMERCIAL OFF-THE-SHELF IMPLEMENTATION

With the ever increasing pace of changes in business needs, many organisations find it more cost-effective to acquire instead of build their own applications. In this subject, you will learn to source, select, acquire and implement commercial application packages to meet the business information needs of 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.

CFI2P14 FOREIGN EXCHANGE & MONEY MARKET PROCESSING

This subject aims to help you understand the basic foreign exchange, as well as money market concepts and their related instruments that are traded on International Exchanges and markets. It provides you with working knowledge of the execution, control and management of the processes involved and familiarises you with the relevant application systems.

CFI2P15 FIXED INCOME & EQUITY SECURITIES PROCESSING

The aim of this subject is to help you understand the Equities market and the securities (including fixed income securities) that are commonly traded on these global markets. It prepares you in the processing of the underlying trades from their start to the final settlement and also looks at settlement risks related to these trades.

CFI2P16 DERIVATIVES & STRUCTURED PRODUCTS PROCESSING

This subject will help you understand the various types of financial derivatives and structured products that are currently available in the market, such as futures, options, swaps and other derivative products. It looks at the processes involved in the settlement of these trades as well as issues relating to the processing flow. It also introduces the concept of collateral management and its applicability to the various financial products and the processes involved.

CFI2P17 PORTFOLIO PERFORMANCE MANAGEMENT

This subject introduces you to the techniques used in the finance sector in monitoring performance management and technical analysis of the investment portfolio. This includes an overview of technical analysis, charting, and other tools and techniques available. It also looks at portfolio theory and the various models currently being used in the industry.

CFI2P24 RETAIL BANKING PROCESSING

This subject introduces you to retail banking services with a focus on consumer lending such as loans and credit cards. It will cover credit application processing, credit decision making, closing documentation preparation and loan servicing processing. In addition, common retail payment and collections systems will also be introduced.

CFI2P25 CUSTOMER RELATIONSHIP MANAGEMENT SYSTEMS

This subject introduces you to the concept of customer life cycle in banks, and the customer acquisition, customer retention and relationship development processes. You will also learn how effective customer relationship management strategies and customer relationship management systems can help banks to optimize customer profitability.

CFI2P26 PRIVATE BANKING

This subject introduces you to private banking services offered to high net worth individuals. Topics covered will include overview of investment products available and understanding of the characteristics and risks associated with different financial products. In addition, credit application processing, evaluation and monitoring will also be introduced.

CFI2P27 CORPORATE BANKING PROCESSING

This subject introduces you to the fundamentals of commercial lending, which will include banking services and facilities offered, and understanding of the different industry segments and organisation structure of corporate clients. Topics on loan processing, loan structuring, cash flow analysis and loan documentation will be covered.

CFI2P28 CREDIT RISK MANAGEMENT

This subject introduces you to the principle concepts of credit risk analysis. Topics covered will include methods used to evaluate and quantify credit risk as well as risk profiling of borrowers; through the use of credit risk management systems and credit rating systems. In addition, practices used to create a sound credit environment and ways to improve the credit evaluation process will also be introduced.

CFI3C01 RISK & GOVERNANCE

This subject introduces you to the Monetary Authority of Singapore (MAS) regulations and risk management guidelines for financial institutions. Topics covered include the MAS Act, internal controls for risk management, credit risk management, market risk management, operational risk management, technology risk management, and audit considerations.

CFI3C02 WEALTH MANAGEMENT

This subject introduces you to the financial planning concepts and techniques used in designing a portfolio that meets the varied needs of high net worth individuals and business owners. Topics covered include the wealth management process, cash flow 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 efficiently 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.

CGE1C04 HIGHER OBJECT-ORIENTED PROGRAMMING

This subject focuses on developing in-depth competency in object-oriented programming. It aims to teach you the principles and rationale behind an object-oriented approach to programming, as well as how to develop applications using an object-oriented programming language. In addition, you will be taught exception handling, File I/O, and multithreading. The knowledge and skills acquired will enable you to gain greater competence in program design and development.

CGE1C05 GAME DESIGN

This subject introduces the mechanisms of game design and the concept of a game project software production cycle. It covers players' behaviour and how the successful game design of various game genres and mixed-mode game playing can leverage on basic instincts of the players to motivate them and generate game re-playability.

CGE2C04 INTRODUCTION TO GAME AI

This subject introduces the application of basic Artificial 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 Artificial Intelligence (AI) techniques into game design and development processes. The use of different game development models in game production is also covered.

CGE2C06 GAME DEVELOPMENT

This subject aims to provide you the skills to develop graphical games. You will learn how to program a game using existing game libraries as well as incorporate game techniques such as sprite management and collision detection. Techniques to include media such as sound and image will also be taught

CGE2C08 ONLINE GAME DEVELOPMENT

In this subject you learn the essentials for building on-line games and it 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.

CGE2C09 SOFTWARE ENGINEERING

This subject aims to provide an overview of the entire software life cycle from development to deployment and finally 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.

CGE2C10 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 time and space complexity.

CGE2C11 OBJECT-ORIENTED ANALYSIS & DESIGN

This subject introduces you to object-oriented analysis and design (OOAD). This subject 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 Unified Modelling Language (UML) is used as the basic notation. The topics covered include object-oriented analysis and object-oriented design. 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.

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.

CGE2E02 GRAPHICS PROGRAMMING

Computer graphics play an essential role in computer game development. In this highly technical subject, you will learn further 3D graphics technology programming using industry standard frameworks and formulas that enable them to develop games that look as realistic or as stylised as possible.

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. The subject will also cover the role of marketing, Intellectual Property Rights and Business Models 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.

CGE3C03 GAME AUDIO

The aim of this subject is to give you an overview of the foundations of sound design and sound programming principles. The subject will cover the technical aspects of digital and analog audio processing and recording. You will be exposed to audio engineering software to create sound environments and effects to augment digital media productions.

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.

CIC2E01 INTRODUCTION TO 3D

The aims of the subject are to provide you with a basic knowledge and understanding of 3D modeling techniques for animation and computer games. This subject will cover the fundamentals of creating three-dimensional objects and environments. You will learn basic 3D concepts relating to model making. These skills will be applied to multimedia, games and Internet applications using current technology.

CID1C02 WEB DESIGN

The subject aims to introduce you to the characteristics, developments and impact of Internet and multimedia technologies so that they are familiar with the principles, working knowledge and skills that are fundamental to developing Internet and multimedia applications. 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.

CID1C04 MULTIMEDIA PROJECT 1

The aims of the subject are to provide you with an understanding of the process for conceptualization and integration of design systems into multimedia projects. In addition the subject also equips you with the knowledge and skills to solve design problems in the multimedia field and to critically evaluate multimedia solutions. This subject covers concept development and documentation. You will learn 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.

CID1C08 INTRODUCTION TO HUMAN COMPUTER INTERACTION

The design of efficient, effective and user friendly systems depends upon the understanding of the technology, its users and the domain – this is informatics. This subject will be anchored on this principle. You will be introduced to the fundamentals of cognitive psychology, human computer interaction principles and user centered methodology. This will provide you a basic foundation to understanding how IT enriches the lives of people.

CID1C09 VISUALISATION & DIGITAL TECHNIQUES

The aim of this subject is to introduce to you visualisation and digital techniques for communication of their ideation process. The subject will cover the use of relevant digital equipments and software in the ideation process. You will learn the relevant techniques for visualizing, storyboarding, digital imaging and image composition.

CID1C10 MOTION & SOUND

The aims of the subject are to provide you with an overview and technical foundation of sound design and motion design. In addition key principles and techniques such as framing, composition, pace and emotion in motion and sound will be covered. This subject covers the fundamentals of motion and sound design in the digital media pipeline. Techniques for developing motion and sound digital media content for various interactive digital media industries will be covered.

CID1C11 NEW MEDIA DEVELOPMENT & TRENDS

The aims of the subject are to provide you with a chronology of the impact of communications technologies such as print, radio, television, data communications and the Internet. It covers the communication needs of individuals and organisations, and the effects of new media on social concerns such as culture, economics, education and politics.

CID1C12 ANIMATION PROGRAMMING

This subject introduces you to an object-oriented programming paradigm. An object-oriented programming language is used to teach object-oriented concepts. The subject aims to teach you the principles and rationale behind an object-oriented approach to programming. You will explore various animation algorithms and develop animated sequences using an object-oriented programming language.

CID2C03 HUMAN COMPUTER INTERACTION

The aims of the subject are to provide you with an understanding of the concept of usability and the importance of user-centered 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 findings and recommendation in a report. This subject covers the concepts, theories and applications of human computer interaction. It also covers the user centered design methodology and the various usability evaluation paradigms.

CID2C05 MULTIMEDIA PROJECT 2

The aims of the subject are to provide you with the knowledge and hands-on practice to build flexible and dynamic interactive multimedia applications. In addition, the subject will also cover the design issues and technologies for developing interactive multimedia applications for a variety of platforms.

CID2C07 INTERACTIVITY & INTERFACE DESIGN

The aims of this subject are to provide you with a strong foundation in the principles, techniques and application of interactivity for digital media interfaces. You will be exposed to fundamental principles which guide the development of interactivity on various digital media interfaces and environments. You will be expected to apply these basics principles and techniques through the development of a simple interactive prototype.

CID2C08 INTERACTIVE PROGRAMMING

The subject aims to introduce you to the principles and techniques of developing interactive installations or applications on different platforms. You will be exposed to the APIs, algorithms and programming languages that make these interactive applications work. You will be expected to apply these principles and techniques to develop a simple interactive installation/application on a different platform.

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 workflow 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.

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 fits 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.

CID2P14 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.

CID2P35 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.

CID2P36 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.

CID2P37 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.

CID2P41 CONTENT MANAGEMENT SYSTEM

This subject will teach you the foundations of web content management system and its functionalities. You will be required to deploy a CMS and work on its functionalities such as maintaining and updating web sites. The principles and aptness of using CMS will also be covered.

CID2P42 RICH MEDIA APPLICATION DEVELOPMENT

The subject will cover internet 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 such applications, and be able to make an analysis and comparison of the various solutions available to the developer. You will be expected to apply these principles to develop a rich internet application with emphasis on multimedia, interactivity, appropriate graphic user interface, and performance.

CID2P43 NEW MEDIA STRATEGY & ANALYTICS

The aims of the subject are to provide you with an overview of strategies for the new media platform. It will cover the process of digital marketing and other strategic considerations pertinent to the industry. Analytics relating to new media deployment will also be studied. Important issues such as customer behaviours, traffic building and tracking, and user's experiences will be highlighted in the course as well.

CIM2C06 DATABASE ADMINISTRATION & 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.

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. An object-oriented programming language is used to teach object-oriented concepts. The subject aims to teach you the principles and rationale behind an object-oriented approach to programming. It also aims to teach you to develop object-oriented applications using an object-oriented programming language.

CIT1C08 FUNDAMENTALS OF BUSINESS INFORMATION SYSTEMS

This subject discusses the role of information systems in various business domains, the concepts of information and processes in businesses, and evaluates the ethical and social issues related to IT. The subject also explores the roles, professional practice, ethical obligations and developmental paths of IT professionals. In addition, you will be introduced to the psychological and social aspects of how people interact and communicate. This will provide a basic foundation to understanding how IT may be used to enrich the lives of people.

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 flexible, adaptable IT infrastructure. You will be able to apply the knowledge to propose business solutions to real world problems.

CIT2C09 CLIENT-SERVER APPLICATION DEVELOPMENT

This subject aims to provide 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 implement applications with graphical user interfaces (GUI) that access databases. 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.

CIT2C10 WEB PROGRAMMING

This subject introduces students to the concepts of web programming. Students will be equipped with the necessary skills and knowledge needed to develop simple web applications, including how to build an application that accesses database within web pages.

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-specific 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.

CIT2E07 OPEN SOURCE APPLICATION DEVELOPMENT

This subject covers the concepts and implementation of open source application development. You will use an integrated development environment to design, implement and deploy multi-user software applications using open source technology. Technological and design issues of open source application development will be discussed.

CIT2E08 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.

CIT2P28 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.

CIT2P31 ENTERPRISE WEB DEVELOPMENT & TESTING

This subject will train you to develop an enterprise web application using leading development technologies (e.g. .NET and Web 2.0), which provides functionality over an interactive web interface. You will pick up the rudiments of web development and also learn to test and deploy a fully tested enterprise web application.

CIT2P31 ENTERPRISE SECURITY & APPLICATION MANAGEMENT

Students will develop an understanding of application security issues facing enterprises such as security threats and prevention as well as security standards. The subject will also focus on methods to evaluate and ensure good security practices in application development.

CIT2P33 ENTERPRISE SOLUTIONS & SERVICES MANAGEMENT

This subject introduces you to commonly used Enterprise solutions such as CRM, ERP, and E-business concepts. These concepts are important in specifying and managing common IT solutions within the enterprise. The subject will also introduce you to managing software as a service and the issues of guaranteeing service delivery within the enterprise.

CIT2P41 ENTERPRISE BUSINESS PROCESSES & SYSTEMS

The subject aims to give an overview of key business processes of an enterprise. You will acquire skills in implementing enterprise business systems to enable streamlining and automation of business processes to increase operational efficiency. Effective planning and managing of resources through better visibility and decision making and improving customer service and partner collaboration across the supply chain via software solution will also be discussed.

CIT2P42 BUSINESS SOLUTION INTEGRATED PROJECT

This subject aims to equip you with the knowledge and skills required in implementing a business solution integrated project. You will be given realistic business scenarios that require you to analyse, design, customize and implement a business solution that meets the requirements.

CIT2P43 ENTERPRISE BUSINESS SYSTEMS INTEGRATION

This subject aims to provide you with knowledge of various web-based business integration technologies such as Service-Oriented Architecture. You will apply the knowledge to integrate established business software system with new or legacy system in the enterprise.

CIT2P44 DYNAMIC WEB APPLICATION DEVELOPMENT

This subject covers the concepts and implementation of dynamic web-based applications. You will use an integrated development environment to design, implement and deploy multi-user web-based applications with database connectivity. Technological and design issues of web-based application development will be discussed to provide a strong foundation in the web programming paradigm.

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.

CMC1C03 INTRODUCTION TO WIRELESS TECHNOLOGIES

Wireless technologies represent a rapidly emerging area of growth and importance in providing ubiquitous access for individuals and enterprises. On the other hand, the pervasiveness of wireless technologies also gives rise to social and ethical issues. This subject introduces you to the basic concepts of wireless networking and the applications of wireless technologies in different domains. Issues arising from the usages of wireless technologies will also be discussed.

CMC2C10 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.

CMC2C11 MOBILE & WIRELESS NETWORKING

This subject covers the various concepts and principles in mobile communication and wireless networking. Basic theories on mobile and wireless architecture and their applications will be discussed. You will learn the knowledge and skill to design, install and configure wireless networks.

CMC2C12 CONVERGED NETWORKING

This subject covers the trend towards technology convergence where a single network can be used to support different types of traffic like data, audio, video and interactive multimedia. It also explains how various technologies have made convergence possible. It then narrows to focus on the concepts, design and implementation of Voice-over-Internet-Protocol (VoIP) networks and application services. You will be introduced to topics on IP telephony principles and related protocols, internetworking devices, voice and data networks design and implementation, and application services development.

CMC2C13 NETWORK MANAGEMENT

This subject covers the concepts of network management principles and practices. You will learn the techniques of operating, administrating, maintaining, and provisioning of networked systems. Topics include OSI network management model, wired and wireless network operation management, deployment and upgrades of wired and wireless network and configuration of network resources for performance.

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.

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 traffic: 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.

CMC2P31 MOBILE USABILITY DESIGN

Usability is one of the main factors in influencing the adoption of mobile devices and services for individuals and enterprises. This subject covers the dominant design in mobile user interfaces, and examines some widely acclaimed mobile and wireless products with good usability design. Usability testing to assess the ease of use of a mobile device or other personal communication devices is also covered.

CMC2P41 IT INFRASTRUCTURE MANAGEMENT

This subject provides you with the skills to manage IT elements in the enterprise. Topics covered include backup and recovery management for saving and restoring data, software distribution, configuration management to track changes made to hardware and software configurations, event management for monitoring and alerting problems in the IT environment, availability of hardware and application in the environment, performance and capacity management.

CMC2P42 IT SERVICE DESK MANAGEMENT

This subject provides you with the skills to manage service requests by customers that make use of services provided by an organisation's IT infrastructure. Topics covered include reporting, request fulfillment, service level agreement management, incident management, problem management, notification, escalation, help desk functions, event management and access management.

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 configure wired and wireless WAN networks.

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.

CMP3102 MAJOR PROJECT

In this subject you apply the skills and knowledge in Software Engineering, acquired from the various Diploma in IT subjects, and in business domain electives to a project. You will analyse, design, develop, implement and test viable and working information systems and solutions. You will be required to work in teams to manage your project development, and to present and demonstrate your systems. You will learn to handle problems and difficulties inherent in project work where teamwork and co-operation are important success factors. Concurrently, you will acquire new knowledge in technology and new skills in project management, problem solving, communication and interpersonal skills which will serve you well as you embark on your careers as IT Professionals.

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.

CMP3502 MAJOR PROJECT

The subject aims to provide you with an opportunity to apply knowledge and skills acquired in the course to a project. You will apply the various multiple media programming environments and paradigms illustrated during the course to the project. 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 course of 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 financial information systems projects. You will work in a team to develop, present and demonstrate your solution to a problem. This provides an avenue for you to experience group work and the problems and difficulties inherent in project work where teamwork and co-operation are important success factors.

CSI3001 STUDENT INTERNSHIP PROGRAMME

The Student Internship Programme exposes you to an industry environment and is an integral part of the curriculum. Immersion in a real working environment will enhance your understanding of the application of IT in an organisation, and provide an opportunity for students to grow into responsible professionals. You will be expected to show sensitivity to the needs of your clients and organisations as you apply and integrate the knowledge and skills acquired in IT and domain areas to the work you are assigned. You will also be expected to demonstrate independence, initiative, creativity, strong conceptual thinking, technical proficiency and sensitivity to the needs of clients.

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 (Extrapersonal 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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- 324 Temasek Applied Science School
- 326 Temasek Business School
- 329 Temasek Design School
- 330 Temasek Engineering School
- 331 Temasek Humanities & Social Sciences School
- 334 Temasek Informatics & IT School



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 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 interdisciplinary 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 fire 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
BMK1003	Introduction to Marketing	1	3

Subject Synopses

BAF1005 BASIC FINANCIAL ACCOUNTING

This subject provides you with an understanding of the general framework of the accounting discipline. You will learn basic knowledge of accounting concepts including preparing, understanding and analysing accounting records and simple financial reports for small and medium-sized enterprises. You will have opportunities to apply the knowledge to real world situations.

BAF1006 BASIC FINANCE

This subject equips you with a basic understanding of financial management, various sources and application of funds of a typical business and some basic techniques to assist in long-term financial decision-making. You will have opportunities through various learning methods such as group discussions and research assignments to apply the knowledge to real world situations.

BBS1003 MANAGING HUMAN RESOURCES

This subject equips you with an understanding of the human resource management functions ranging from employee induction, people development, performance appraisal, rewards and benefits, change management, team management to discipline and grievance handling. You will also have an appreciation of the current trends in the field of human resource management.

BBS1004 FUNDAMENTALS OF MANAGEMENT

This subject equips you with the basic understanding of key management functions of planning, organising, leading and controlling. You will also gain an understanding of the impact of the key environmental factors on business, the importance of corporate social responsibility, business ethics and international management.

BBS1005 FUNDAMENTALS OF ENTREPRENEURSHIP

This subject equips you with the basic understanding of entrepreneurship and an appreciation of issues relating to the setting up of new businesses. You will be able to develop basic, sound business strategies to create viable business plans through the understanding of issues relating to market analysis, customers, marketing mix, staffing and basic financial projections.

BBT1004 BASICS OF E-BUSINESS

This subject provides 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 firms. You will also learn problem-solving and process skills that will allow you to understand how economic variables affect business decision-making.

BHT1015 EVENT PLANNING

This subject provides 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 fieldwork and research on related areas. The subject will also develop your process and problem-solving skills, as well as your ability to interact and communicate effectively with others.

BHT1016 FUNDAMENTALS OF HOSPITALITY & TOURISM BUSINESS

This subject provides 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 a basic understanding of business logistics and supply chain management. You will have opportunities to apply some of the basic techniques acquired to manage real-life problems faced in the industry. 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.

BMK1003 INTRODUCTION TO MARKETING

This subject provides students with an understanding of the basic concepts of marketing. It focuses on the tools used by marketers to develop the appropriate marketing mix like product, promotion, price and place; and includes key topics like environmental forces and market segmentation. This subject is useful because it teaches students how to market their company's products and services successfully.

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	Design In Culture	1	3
DVC1905	Colour & Composition	1	3

Subject Synopses

DAD1900 20TH CENTURY FASHION

This subject introduces you to the evolution of fashion in the 20th century. You will explore different fashion looks and styles, trends and silhouettes. Influences from international fashion designers in the fashion industry will also be introduced.

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 fit 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 DESIGN IN CULTURE

This subject introduces the factors behind cultural formation, and explores human expression in its various forms. It explores human behaviour and production, and some key issues in social development such as geography, history, politics, psychology and gender. Through an examination of objects and artefacts, from early tribal rites and rituals to contemporary fashion and trends, you will develop an awareness and appreciation of culture in shaping societies' needs, wants and desires.

DVC1905 COLOUR & COMPOSITION

This subject introduces basics in colour and composition theories and their application in art and design. It provides an appreciation of such basic theories by understanding the role of primary colours as a catalyst to how colour schemes are derived, and how they are applied in two and three-dimensional compositions.

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, finance 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 financial 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 specific 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 confident speakers. It equips you with the techniques to develop, deliver and evaluate speeches appropriate to a variety of contexts, including both impromptu and prepared situations.

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 five major areas of psychology: cognitive (learning and memory), developmental (intelligence and personality), physiological (motivations, emotions and stress), social (conformity, authority, friends and groups) and abnormal (disorders and treatment). By the end of this subject, you should be able to understand yourself and others better.

GSS1004 INTRODUCTION TO SOCIOLOGY

This subject introduces 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
CID1X02	Introduction to Digital Tools & Techniques	1	3
CIM1X01	Effective Internet Research	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 office automation, and many others. This subject provides an introduction to IP Telephony and Voiceover-IP. You will learn about the benefits 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 workflow, 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.

CID1X02 INTRODUCTION TO DIGITAL TOOLS & TECHNIQUES

This subject provides you with an understanding of the importance of digital media processes and techniques. It equips you with the ability to use digital equipment for various production methods and explores the use of various design systems (eg. Corporate Identity, Grid Structure, Golden Section and Colour systems) to create effective visual presentations. It will enable you to create effective visuals using appropriate tools and techniques. The subject covers the fundamental concept and design systems for digital media production.

CIM1X01 EFFECTIVE INTERNET RESEARCH

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 identified 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 scientific 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 Office 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 multitier 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 firm 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 firm 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, confidence 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 will 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 equips 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.

Information for International Students

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Temasek Polytechnic provides our international students with an excellent academic experience with 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 (TPIS) 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.

The Global Connect Club (GCC) interest group further enhances social integration, promotes better integration and understanding between international students and local students.

Temasek Polytechnic was awarded the Singapore Tourism Board’s inaugural Singapore Education Awards for “Best Host of International Students Studying in Singapore” in March 2007. We were judged to be the best in both our 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 proud of the award and the support of our local and senior international students in welcoming our International Freshmen. TP was also one of the finalists for this award in 2008.

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 you can 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 2009/2010 is about \$3,150 (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 \$161.10 for Academic Year 2009/2010 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.

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:

Country	Qualification
Australia	High School Certificate or Senior Certificate (Year 12)
Bangladesh	Higher Secondary Certificate (HSC) / Intermediate Certificate issued by The Board Of Intermediate & Secondary Education
Brunei	GCE O Level
Canada	<ul style="list-style-type: none"> • Alberta (General High School Diploma) • British Columbia (Senior Secondary Graduation Diploma) • Manitoba (High School Graduation Diploma) • New Brunswick (High School Graduation Diploma) • Newfoundland (High School Graduation Diploma) • NW Territories (General High School Diploma) • Nova Scotia (High School Completion Certificate) • Ontario (Ontario Secondary School Diploma) • Prince Edward Island (High School Graduation Diploma) • Quebec (High School Diploma/Diplome d'Etudes Secondaires (DES)/ Secondary Grade V Certificate) • Saskatchewan (Secondary Graduation Diploma) • Yukon Territory (Senior Secondary Graduation Diploma)
China	National College Entrance Examination (NCEE), also known as 'GAO KAO'
Others	Equivalent to the United Kingdom GCE O Level Examinations
Hong Kong	Hong Kong Certificate of Education (HKCEE)

Country	Qualification
India	<ul style="list-style-type: none"> Indian Certificate of Secondary Education (ICSE) Standard 10/12 awarded by the Council for the Indian School Certificate Exam All India Secondary School Exam (CBSE) Standard 10/12 awarded by the Central Board of Secondary Education Secondary School Leaving Certificate Standard 10/12 awarded by the Tamil Nadu Board of Secondary School Leaving Certificate Exam All Anglo-Indian School Leaving Certificate Standard 10/12 awarded by the Board of Anglo-Indian School leaving Certificate Examination, Tamil Nadu Matriculation Examination Certificate Standard 10/12 awarded by the Board of Matriculation, Tamil Nadu Secondary School Leaving Certificate (SSLE) Standard 10/12 awarded by the Maharashtra State Board Secondary School Leaving Certificate (SSLE) Standard 10/12 awarded by the Kerala State
Indonesia	National Final Evaluation Examinations (SMA or SMU Ebtanas or UAN)
Malaysia	Sijil Pelajaran Malaysia (SPM) /STPM or Unified Examination Certificate (UEC) Qualifications
Myanmar	Basic Education High School Examination Certificate (B.E.H.S)/ Matriculation - (Standard 10)
Nepal	Proficiency Certificate (previously known as the Intermediate Examination)
Pakistan	Intermediate/Higher Secondary School Certificate (HSC) issued by The Board of Intermediate & Secondary Education
Philippines	High School Diploma/Certificate with : National Secondary Assessment Test (NSAT) OR High School final year results OR National Career Assessment Examination (NCAE)
Sri Lanka	Sri Lanka GCE O Level Examination
Thailand	Mathayom 6 (M6) MAW 6 - Grade 12
USA	High School Graduation Diploma or Year 12
Vietnam	'Bang Trung Hoc Pho Thong' (commonly known as 'Bang Tu Tai' or 'Baccalaureate')
Others	International Baccalaureate (IB) Diploma Grading Scale : Highest Grade (7) Lowest Grade (1)

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 between 21 and 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 as the whole 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.

Living Expenses

The following is a general guideline of estimated expenditure in Singapore dollars:

Your living expenses is estimated to be between S\$780 - S\$1,100 per month. These costs are estimates, subject to variation according to individual lifestyles. **It is important that you should be able to support yourself financially during your course of study and stay in Singapore.**

Estimated Cost of Living	Monthly in S\$	Yearly in S\$
Accommodation Cost varies depending on twin-sharing, furnished or unfurnished.	400 - 500	4800-6000
Food	300 - 400	3600 - 4800
Transport Cost varies. You can apply for the Student EZ-Link Card to travel on public transport at a concession rate.	50 - 100	600 - 1200
Books and Supplies Cost varies depending on diploma enrolled.	-	250 - 500
Class Fund	-	50 - 200
Personal Expenses Cost varies depending on personal spending habits (clothes, entertainment, hair cuts, toiletries)	30 - 100	360 - 1200
Hospitalisation & Surgical Insurance (The premium is subject to review and change)	-	35 - 50
Total (Approximate)	780-1100	9695 - 13950

Admission & Requirements

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GENERAL INFORMATION ON APPLICATION

- All applications are to be submitted online 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 online.
- 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.
- Applicants are personally responsible for providing accurate and complete information in their application. Applications which contain inaccurate, false or missing information will be rendered invalid. Students who are admitted on such basis will be asked to withdraw from their course of study.

APPLICATION PROCEDURES

Depending on the qualification obtained, applicants are invited to apply through the respective admissions exercises shown below:

Qualification	Singapore-Cambridge GCE O Level			ITE certificates SPM/ STPM	Singapore-Cambridge GCE A Level, Integrated Programme (IP) / International Baccalaureate (IB) & other local certificates#	Foreign certificates
Types of admissions exercises	Joint Admissions Exercise (JAE) ^	Joint Polytechnic Special Admissions Exercise (JPSAE) – Special Talents (Academic & CCA Special Talents) %^	Direct Polytechnic Admission Exercise (DPA)	Joint Polytechnic Admissions Exercise (JPAAE)	Direct Admissions Exercise (DAE – Local Qualifications)	Direct Admissions Exercise (DAE – Foreign Qualifications)

Who may apply						
	<p><u>Singaporeans (SC) or Singapore Permanent Residents (SPR)</u> - GCE O Level results (2008 or earlier)</p> <p><u>Foreign Students</u> - from a government, government-aided or independent school (excluding private schools) with 2008 GCE O Level results</p>	<p>Singaporeans (SC) or Singapore Permanent Residents (SPR), foreign students (from a government, government-aided or independent school) with 2008 GCE O Level results</p> <p>Candidates should also possess one of the following:</p> <ul style="list-style-type: none"> - 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 	<p><u>Singaporeans (SC) or Singapore Permanent Residents (SPR)</u> - have registered for the GCE O Level examinations in the year of the DPA admission exercise</p> <p><u>Foreign students</u> - enrolled in government, government-aided or independent schools - have registered for the GCE O Level examinations in the year of the DPA admission exercise</p>	<p>Holders of relevant - Higher NITEC - NITEC certificate who have sat for either the Singapore-Cambridge GCE N or O Level</p> <p>Final semester ITE students of relevant Higher NITEC/ NITEC certificate</p> <p>Holders of SPM/ STPM results</p> <p>Current or Ex-polytechnic students with ITE certificate seeking re-admission</p>	<p><u>GCE A Level holders</u> who are seeking for admission to selected courses (2½ year duration) @ - Candidates who have sat for the recent GCE A Level examination and have missed JAE & JPSAE</p> <p><u>Students on Integrated Programme (IP) / International Baccalaureate (IB) certificates</u> - completed the equivalent of Secondary 4 or higher</p> <p><u>GCE O Level holders</u> who missed the English Language requirement but have obtained distinctions both in Maths and relevant subjects</p> <p>Foreign students from private schools with Singapore-Cambridge GCE O Level results (2008 or earlier)</p> <p>Current or Ex-polytechnic students seeking re-admission</p>	<p>Holders of foreign qualifications except SPM & STPM holders</p>

When to apply	<p>5 calendar days starting from the release of the GCE O Level examination results</p> <p>Refer to www.moe.gov.sg/education/admissions/jae and press release in local newspaper</p>	<p>Similar timeframe as JAE</p> <p>Refer to www.polytechnic.edu.sg/jpsae upon release of GCE O Level results, for latest update</p>	<p>Around July 2009 (for April 2010 intake)</p> <p>Refer to www.moe.gov.sg for press release and www.polytechnic.edu.sg/dpa for latest information</p>	<p><u>ITE certificate holders</u> Early Feb 2009</p> <p><u>SPM/ STPM holders</u> Early Mar 2009</p> <p>Refer to www.polytechnic.edu.sg/jpae for the latest information</p>	<p><u>April 2009 Intake</u> GCE O Level holders - same timeframe as JAE</p> <p>GCE A Level holders - 5 calendar days from the release of the Singapore-Cambridge GCE A Level examination results</p> <p>Application period for students with IP or IB certificates is similar to O or A Level holders</p> <p><u>October 2009 Intake</u> 3 -14 August 2009</p>	<p>Application Period: <u>April 2009 Intake</u> 1 Sep 2008 to 15 Oct 2008</p> <p><u>October 2009 Intake</u> 1 Mar 2009 to 15 Apr 2009</p>
How to apply	<p>Apply online at www.moe.gov.sg/education/admissions/jae</p>	<p>Apply online at www.polytechnic.edu.sg/jpsae</p>	<p>Apply online at www.polytechnic.edu.sg/dpa</p>	<p>Apply online at www.polytechnic.edu.sg/jpae</p>	<p>GCE O and A Level holders can apply online at www.tp.edu.sg/home/admissions/adm_apply.htm</p> <p>Students with Integrated Programme (IP)/International Baccalaureate (IB) certificates can download application form at http://www.tp.edu.sg/home/admissions/adm_exercise/dae.htm</p>	<p>Application form can be downloaded at www.tp.edu.sg/home/admission/is.htm</p>

What selection is based on	Academic results	Academic results and CCA Special Talents Shortlisted applicants may be invited to attend interviews, aptitude tests and/or auditions to ascertain the applicants' motivation, creativity, knowledge, aptitude and potential before final selection	Applicants are selected based on a basket of criteria including ability, talent and interest for the chosen course Shortlisted candidates may be required to attend an interview and/ or sit for a test	Academic results	Academic results Short-listed applicants may be required to attend interviews and/or aptitude tests before final selection.	
Entry requirements	Refer to the respective school sections on the Minimum Entry Requirements					
Notification of posting results	Posting of results will be released by the Ministry of Education	Applicants may check their posting results at www.polytechnic.edu.sg/jpsae	Applicants may check their posting results at www.polytechnic.edu.sg/dpa	Applicants may check their posting results at www.polytechnic.edu.sg/jpae	Applicants will be notified of the outcome of their applications by post. Applicants may also check their application status online at: www.tp.edu.sg/home/admissions/adm_status.htm . Click on "Course Application Status Enquiry & Enrolment System".	
Expected release of posting results	About two weeks after the JAE registration period Please refer to the Joint Admissions Exercise information booklet or the www.moe.gov.sg/education/admissions/jae for the latest information	Similar to the JAE posting period	Around August 2009	- Early Mar 2009 (for ITE certificate holders) - End Mar 2009 (for SPM/ STPM holders) - Early Apr 2009 (for ITE students who are waiting for final semester results)	About three weeks before course commencement	About one to two months before course commencement

Application enquiries	Ministry of Education Customer Service Centre: +65 6872 2220	Polytechnic of applicant's first choice	Temasek Polytechnic Admissions: email: admissions@ tp.edu.sg Tel : +65 6787 8000 Fax: +65 6783 3031	Temasek Polytechnic International Students Office: email: isohotline@ tp.edu.sg Tel: +65 6780 5970 Fax: +65 6789 4409
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% Applicants applying through JPSAE are also advised to submit their application through JAE.

^ This section should be read in conjunction with the JAE Booklet and Joint Polytechnic website at www.polytechnic.edu.sg.

Certificates issued by Ministry of Education, Singapore.

@ Courses that are of 2½ year duration for Singapore-Cambridge A Level Holders – Diploma in Biotechnology, Diploma in Chemical Engineering and Diploma in Electronics.

Diploma in Consumer Science & Technology (CST)

- Applicants are required to apply directly under the Home Economics Teacher Training Scheme at the Ministry of Education (1 Buona Vista Drive, Singapore 138675).
- Information on the application period and procedure can be found at www.moe.gov.sg/careers/teach/applying/o-levels/.
- For enquiries, please contact the Ministry of Education Customer Service Centre at (6872 2220 / contact@moe.edu.sg).

ELIGIBILITY & ENTRY REQUIREMENTS

Eligibility

To be considered for admission to a course, applicants will have to:

- Meet the minimum entry requirements for the course
- Be certified physically and mentally fit to pursue the course. Please refer to the section on Medical 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 Level Qualification Holders

Applicants with a Singapore-Cambridge GCE O Level qualification will be ranked according to their aggregate score of the following GCE O Level subjects:

- English Language (EL)
- 2 relevant subjects (R2) and
- 2 other best subjects (B2)

Applicants must obtain 26 points or better for the net ELR2B2 aggregate score (including CCA Bonus Points) and meet the minimum entry requirements of the respective course. Applicants may combine their GCE O Level results of up to two sittings.

Details on the minimum entry requirements of the respective courses can be found under the section on course information or at the Ministry of Education website, www.moe.gov.sg/education/admissions/jae. Applicants are advised to read the section on the minimum entry requirements in conjunction with the section on Posting Procedure and Annex A – Posting of Applicants & Aggregate Type in the JAE information booklet.

Minimum Entry Requirements for Singapore-Cambridge GCE A Level Qualification Holders

Applicants with a Singapore-Cambridge GCE A Level qualification who apply for the courses below and meet the minimum entry requirements will be eligible for exemptions and complete their course in 2½ years:

- Biotechnology
- Chemical Engineering
- Electronics

Details on the minimum entry requirements of the above courses can be found at the respective Schools' sections of the prospectus.

A Level certificate holders may also apply for other three-year Diploma courses using their Singapore-Cambridge GCE O Level results. Please refer to the "Minimum Entry Requirements for Singapore-Cambridge GCE O Level Qualification Holders" for more information.

MINIMUM ENTRY REQUIREMENTS FOR ITE CERTIFICATE HOLDERS

ITE certificate holders with the relevant Higher NITEC/NITEC may seek admission to TP's full-time diploma courses. Please refer to the respective tables in the following pages for the list of acceptable ITE certificates for application to the courses.

Applicants with ITE certificate will be ranked according to their academic Grade Point Average (GPA).

a) Higher National ITE Certificate (Higher NITEC)

Course	Relevant Higher NITEC*	Entry Level	Min GPA
APPLIED SCIENCE			
Biomedical Science ② Biotechnology	a) IT58 Biochemical Technology	1	3.5
BUSINESS			
Accounting & Finance	a) BS82 Banking Services	1	3
	b) BS85 Business Studies (Accounting)/ Accounting	1	3
	c) BS86 Business Studies (Administration/ Secretarial)	1	3
	d) BS88 Business Studies (E-Commerce)/ Business-Information Technology	1	3
	e) BS84 Business Studies (Event Management)	1	3
	f) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	3
	g) BS89 Business Studies (Sport Management)	1	3
Business/Logistics & Operations Management/Marketing Retail Management	a) BS85 Business Studies (Accounting)/ Accounting	1	3
	b) BS86 Business Studies (Administration/ Secretarial)	1	3
	c) BS88 Business Studies (E-Commerce)/ Business-Information Technology	1	3
	d) BS84 Business Studies (Event Management)	1	3
	e) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	3

Course	Relevant Higher NITEC*	Entry Level	Min GPA
Business Information Technology ①	a) BS85 Business Studies (Accounting)/ Accounting	1	3
	b) BS86 Business Studies (Administration/ Secretarial)	1	3
	c) BS88 Business Studies (E-Commerce)/ Business-Information Technology	1	3
	d) BS84 Business Studies (Event Management)	1	3
	e) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	3
	f) IT56 Information Technology	1	3
Culinary & Catering Management Hospitality & Tourism Management Leisure & Resort Management	a) BS85 Business Studies (Accounting)/ Accounting	1	3
	b) BS86 Business Studies (Administration/ Secretarial)	1	3
	c) BS84 Business Studies (Event Management)	1	3
	d) BS83 Hospitality Operations	1	3
Law & Management #	a) BS85 Business Studies (Accounting)/ Accounting	1	3
	b) BS86 Business Studies (Administration/ Secretarial)	1	3
	c) BS84 Business Studies (Event Management)	1	3
	d) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	3
DESIGN			
Interactive Media Design ②	a) IT56 Information Technology	1	3
Product & Industrial Design ② ③	a) IT21 Electro-Mechanical Engineering	1	3
	b) IT51 Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	3
	c) IT52 Mechanical Engineering	1	3
	d) IT22 Mechatronics Engineering	1	3

Course	Relevant Higher NITEC*	Entry Level	Min GPA
Moving Images ②	a) IT63 Game Design & Development	1	3
	b) IT56 Information Technology	1	3
ENGINEERING			
Aerospace Electronics ② ③ Aerospace Engineering ② ③	a) IT41 Electronics Engineering/ Industrial Electronics Engineering	1	3
	b) IT22 Mechatronics Engineering	1	3
Business Process & Systems Engineering			
Integrated Facility Design & Management			
Interactive Media Technology ②			
Intelligent Building Technology	a) IT31 Electrical Engineering	1	3
	b) IT41 Electronics Engineering/ Industrial Electronics Engineering	1	3
	c) IT51 Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	3
	d) IT22 Mechatronics Engineering	1	3
Electronics ▶	a) IT41 Electronics Engineering/ Industrial Electronics Engineering	1 2**	3 3.5
	b) IT22 Mechatronics Engineering	1	3
Computer Engineering ▶ Media & Communication Technology ▶	a) IT41 Electronics Engineering/ Industrial Electronics Engineering	1	3
	b) IT22 Mechatronics Engineering	1	3
Microelectronics ▶			
Mechatronics ③	a) IT41 Electronics Engineering/ Industrial Electronics Engineering	1 2**	3 3.5
	b) IT52 Mechanical Engineering	1	3
	c) IT22 Mechatronics Engineering	1 2**	3 3.5

Course	Relevant Higher NITEC*	Entry Level	Min GPA
Clean Energy	a) IT31 Electrical Engineering	1	3
	b) IT41 Electronics Engineering/ Industrial Electronics Engineering	1	3
	c) IT22 Mechatronics Engineering	1	3
Info-Communications	a) IT41 Electronics Engineering/ Industrial Electronics Engineering	1	3
	b) IT56 Information Technology	1	3
	c) IT22 Mechatronics Engineering	1	3
	d) IT61 Network Security Technology	1	3
	e) IT57 Wireless Technology	1	3
INFORMATICS & IT			
Cyber & Digital Security ①	a) BS82 Banking Services	1	3
Financial Business Informatics ①	b) IT58 Biochemical Technology	1	3
Game & Entertainment Technology ②	c) BS85 Business Studies (Accounting)/ Accounting	1	3
Information Technology ①	d) BS86 Business Studies (Administration/ Secretarial)	1	3
Interactive Media Informatics ②	e) BS88 Business Studies (E-Commerce)/ Business-Information Technology	1	3
Mobile & Wireless Computing ①	f) BS84 Business Studies (Event Management)	1	3
	g) BS87 Business Studies (Logistics)/ Integrated Logistics Management	1	3
	h) BS89 Business Studies (Sport Management)	1	3
	i) IT59 Chemical Technology	1	3
	j) BS81 Early Childhood Education	1	3
	k) IT31 Electrical Engineering	1	3

l)	IT41	Electronics Engineering/ Industrial Electronics Engineering	1	3
m)	IT21	Electro-Mechanical Engineering	1	3
n)	IT63	Game Design & Development	1	3
o)	BS83	Hospitality Operations	1	3
p)	IT56	Information Technology	1	3
q)	IT55	Manufacturing Engineering	1	3
r)	IT60	Marine Offshore Engineering	1	3
s)	IT51	Mechanical & Electrical Engineering Design/ Mechanical & Electrical Drafting & Design	1	3
t)	IT52	Mechanical Engineering	1	3
u)	IT22	Mechatronics Engineering	1	3
v)	IT61	Network Security Technology	1	3
w)	IT62	Paramedic & Emergency Care	1	3
x)	IT57	Wireless Technology	1	3

NOTE:

* ITC or CBS COM certificate holders may apply.

Applicants to the Diploma in Law & Management must also possess at least a B4 grade in English Language (EL1) in the Singapore-Cambridge GCE O Level/ SPM examinations.

- ① Applicants applying for these courses must ensure that they do not suffer from complete or full colour appreciation deficiency. Applicants with partial colour appreciation deficiency may apply.
- ② Applicants applying for these courses must ensure that they do not suffer from partial or complete colour appreciation deficiency.
- ③ For safety reasons, applicants applying for these courses must ensure that they do not suffer from medical conditions such as epilepsy or hearing impairment.

- ** 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 Electronics, Diploma in Media & Communication Technology, Diploma in Computer Engineering and Diploma in Microelectronics are also offered as a common course in the first year.

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 ②	a) NT21 Building Drafting (Architectural)	1	3.5
Interactive Media Design ②	a) NT44 Digital Media Design/ Digital Media Design (Interactive Media)	1	3.5
	b) NT41 Multimedia Technology	1	3.5
Interior Architecture & Design ②	a) NT21 Building Drafting (Architectural)	1	3.5
Moving Images ②	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 ② ③	a) NT30 Maintenance Fitting/ Mechanical Servicing/ Mechanical Technology	1	3.5
	b) NT46 Product Design	1	3.5
Retail & Hospitality Design ②	a) NT21 Building Drafting (Architectural)	1	3.5
Visual Communication ②	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			
Aerospace Electronics ② ③	a) NT59 Aerospace Avionics	1	3.5
Aerospace Engineering ② ③	a) NT53 Aerospace Technology	1	3.5
	b) NT48 Precision Engineering (Aerospace)	1	3.5
Computer Engineering ►	a) NT59 Aerospace Avionics	1	3.5
	b) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5
Electronics ►	a) NT59 Aerospace Avionics	1	3.5
	b) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5
Info-Communications	a) NT40 Info-communications Technology	1	3.5
	b) NT41 Multimedia Technology	1	3.5
Intelligent Building Technology	a) NT26 Electrical Fitting & Installation/ Electrical Installation & Servicing/ Electrical/ Electrical Technology (Installation & Servicing)	1	3.5
	b) NT27 Electrical Power & Machines/ Electrical Technology (Power & Machines)	1	3.5
	c) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5

Course	Relevant NITEC*	Entry Level	Min GPA
Interactive Media Technology ②	a) NT52 Digital Animation	1	3.5
	b) NT44 Digital Media Design	1	3.5
Mechatronics ③	a) NT53 Aerospace Technology	1	3.5
	b) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5
	c) NT25 Electro-Mechanical Servicing/ Mechatronics	1	3.5
Media & Communication Technology ▶	a) NT59 Aerospace Avionics	1	3.5
	b) NT47 Communications Technology	1	3.5
	c) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5
Microelectronics ▶	a) NT59 Aerospace Avionics	1	3.5
	b) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ Electronics (Instrumentation)/ Electronics (Wafer Fabrication)/ Electronics (Wireless LAN)	1	3.5

Course	Relevant NITEC*	Entry Level	Min GPA
INFORMATICS & IT			
Cyber & Digital Security ①	a) NT47 Communications Technology	1	3.5
Game & Entertainment Technology ②	b) NT52 Digital Animation	1	3.5
Information Technology ①	c) NT56 Digital Audio and Video Production	1	3.5
Interactive Media Informatics ②	d) NT44 Digital Media Design/ Digital Media Design (Interactive Media)	1	3.5
Mobile & Wireless Computing ①	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
	i) NT24 Electronics Servicing/ Electronics/ Electronics(Computer & Networkings)/ 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 qualification.
- ① Applicants applying for these courses must ensure that they do not suffer from complete or full colour appreciation deficiency. Applicants with partial colour appreciation deficiency may apply.
- ② Applicants applying for these courses must ensure that they do not suffer from partial or complete colour appreciation deficiency.
- ③ For safety reasons, applicants applying for these courses must 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 also offered as a common course in the first year.

MINIMUM ENTRY REQUIREMENTS FOR HOLDERS OF OTHER QUALIFICATION

Please refer to the section on “Information for International Students”.

OTHER INFORMATION

Medical Fitness

For safety reasons, applicants with medical condition(s) (eg, epilepsy, physical disability and/or other disabilities such as hearing impairment 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 certified mentally and physically fit by a medical practitioner registered with the Singapore Medical Council to pursue their course of study at the point of enrolment and before course commencement. Those who are unable to complete or fulfill the requirements of the pre-enrolment medical examination will be deemed as unfit to pursue the course of study. Such applicants, if enrolled, will be advised to withdraw.

Applicants who are suffering from full/complete colour appreciation deficiency are not eligible to apply for the following courses:

- Aerospace Electronics*
- Aerospace Engineering*
- Apparel Design & Merchandising*
- Biomedical Science*
- 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 deficiency 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 first 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 qualification 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. Students may check Student Portal or consult the school advisors or Course Manager for details during orientation.

Financing Your Studies

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TUITION FEE INFORMATION

Tuition Fee for Full-Time Diploma Courses

The tuition fee for Academic Year 2009/2010 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 notified 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 full fees chargeable for tuition fee and tuition grant 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.

Student Group Personal Accident (GPA) Insurance

All full-time and part-time subsidised students are covered by the Student Group Personal Accident (GPA) Insurance Policy. This scheme provides insurance coverage for accidents sustained by students. The benefits include compensation upon death, or a proportion thereof for permanent injuries, and 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 Student Portal for details on the Insurance Policy, coverage and claim procedure.

SUMMARY OF FEES FOR ALL FULL-TIME SUBSIDISED DIPLOMA COURSES
Summary of Fees for Full-Time Subsidised Students (Singapore Citizen students who are eligible and opt for Tuition Grant)

Types of Fees	Academic Year (S\$)	Academic Session 1 (S\$)	Academic Session 2 (S\$)
Tuition Fee	2,247.00	1,123.50	1,123.50
GST Subsidy on Tuition Fee	(147.00)	(73.50)	(73.50)
Tuition Grant	14,231.00	7,115.50	7,115.50
GST Subsidy on Tuition Grant	(931.00)	(465.50)	(465.50)
Other Fees			
Examination fee	32.10	32.10	0.00
GST Subsidy on Exam Fee	(2.10)	(2.10)	0.00
GPA Insurance fee	3.00	3.00	0.00
Sports & Wellness fee	25.00	25.00	0.00
Miscellaneous fee	23.50	23.50	0.00
Orientation fee (new students only)	10.50	10.50	0.00
Application fee	7.00	7.00	0.00
Students' Union fee	20.00	20.00	0.00
TOTAL Fee Chargeable	15,519.00	7,819.00	7,700.00
Less:			
Tuition Grant Awarded	(13,300.00)	(6,650.00)	(6,650.00)
Fee payable by student who is eligible and opt for Tuition Grant	2,219.00	1,169.00	1,050.00

NOTES:

Fees are inclusive of GST (except Student Union Fee)

All fees stated are subject to revision.

Summary of Fees for Full-Time Subsidised Students (Singapore Permanent Residents who are eligible and opt for Tuition Grant)

Types of Fees	Academic Year (S\$)	Academic Session 1 (S\$)	Academic Session 2 (S\$)
Tuition Fee	2,471.70	1,235.85	1,235.85
GST Subsidy on Tuition Fee	(161.70)	(80.85)	(80.85)
Tuition Grant	14,231.00	7,115.50	7,115.50
GST Subsidy on Tuition Grant	(931.00)	(465.50)	(465.50)
Other Fees			
Examination fee	32.10	32.10	0.00
GST Subsidy on Exam Fee	(2.10)	(2.10)	0.00
GPA Insurance fee	3.00	3.00	0.00
Sports & Wellness fee	25.00	25.00	0.00
Miscellaneous fee	23.50	23.50	0.00
Orientation fee (new students only)	10.50	10.50	0.00
Application fee	7.00	7.00	0.00
Students' Union fee	20.00	20.00	0.00
TOTAL Fee Chargeable	15,729.00	7,924.00	7,805.00
Less:			
Tuition Grant Awarded	(13,300.00)	(6,650.00)	(6,650.00)
Fee payable by student who is eligible and opt for Tuition Grant	2,429.00	1,274.00	1,155.00

NOTES:

Fees are inclusive of GST (except Student Union Fee)

All fees stated are subject to revision.

Summary of Fees for Full-Time Subsidised Students (Foreign students who are eligible and opt for Tuition Grant)

Types of Fees	Academic Year (\$\$)	Academic Session 1 (\$\$)	Academic Session 2 (\$\$)
Tuition Fee	3,370.50	1,685.25	1,685.25
GST Subsidy on Tuition Fee	(220.50)	(110.25)	(110.25)
Tuition Grant	14,231.00	7,115.50	7,115.50
GST Subsidy on Tuition Grant	(931.00)	(465.50)	(465.50)
Other Fees			
Examination fee	32.10	32.10	0.00
GST Subsidy on Exam Fee	(2.10)	(2.10)	0.00
GPA Insurance fee	3.00	3.00	0.00
Sports & Wellness fee	25.00	25.00	0.00
Miscellaneous fee	23.50	23.50	0.00
Orientation fee (new students only)	10.50	10.50	0.00
GHS Insurance fee(IS)	40.00	40.00	0.00
Application fee	7.00	7.00	0.00
Students' Union fee	20.00	20.00	0.00
TOTAL Fee Chargeable	16,609.00	8,384.00	8,225.00
Less:			
Tuition Grant Awarded	(13,300.00)	(6,650.00)	(6,650.00)
Fee payable by student who is eligible and opt for Tuition Grant	3,309.00	1,734.00	1,575.00

NOTES:

Fees are inclusive of GST (except Student Union Fee)

All fees stated are subject to revision.

PAYMENT OF FEESPayment 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 one IBG application form for fee deduction and fee payable (where applicable) in their enrolment packages by post. Please submit the form, 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 confirm 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 sufficient 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 sufficient 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 given upon request.

Charging 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 will be charged an administrative charge of \$50. New and existing students withdrawing from a course within the first week of the academic session will be charged 25% of the tuition fee and 100% of other fees (except Examination, Sports and Wellness, Miscellaneous fee) where applicable. Full fees will be chargeable thereafter.

Financial Assistance Schemes Available for Full-Time Diploma Courses

The Financial Assistance Schemes (except Post Secondary Education Account) 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 financial assistance scheme(s) by the respective financial scheme organisations. Should your application for the financial 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 students are to complete the standing order form which is available from MOE's website and submit the completed form to the Polytechnic by the deadline.

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.

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 & A Level and ITE holders who are interested in pursuing a career with the Army, Navy or Air Force.

Admission Requirements

Academic

The admission requirements are the same as those specified for GCE O & A Level and ITE holders applying for a full-time polytechnic course. The courses available for sponsorship in each service are as follows:

SERVICE		
ARMY	NAVY	AIR FORCE
All courses are available for sponsorship	All courses are available for sponsorship	<ul style="list-style-type: none"> • Aeronautical Engineering • All Electronic Engineering courses • All Mechatronics Engineering courses • All Mechanical Engineering courses • All Electrical Engineering courses • Computer Engineering • Computer Network • Manufacturing Engineering • Microelectronics • Telecommunication Engineering

Other Requirements

Applicants must:

- a. be Singapore Citizens (Our Army also accepts Permanent Residents);
- b. 16½ to 25 years old; and
- c. must be physically fit and satisfy the SAF medical requirements.

Selection Procedure

Selection of eligible applicants for admission is based on merit. Selection shall be at the discretion of Temasek Polytechnic and the SAF.

Terms of Service and Benefits

Applicants can choose to serve in the Army, Navy or Air Force either as a Combat or non combat/Combat-Technical or a Technical/Operational-Technical Specialist.

Successful applicants will serve a minimum of 5 years for males (inclusive of full-time NS) and 4 years for females under the Premium Plan service.

Tuition and other compulsory fees required by the Polytechnic will be paid for by the SAF.

Trainees will be paid a monthly allowance of \$1,000 for Combat/ Combat-Technical Specialists, \$800 for an Engineering/ Technical/ Operational-Technical Specialist and \$600 for a Non Combat Specialist throughout the three-year course at the Polytechnic. A study bonus of \$1,200 is payable upon successful completion of each semester in one sitting.

Career Prospects

Combat Specialist

As a Combat Specialist, you form the backbone of the organisation, taking on multifaceted role that provides the capabilities to our needs to function effectively. In peacetime, you will hone your chosen skills as well as train and motivated others. When the need arises, you will lead troops into the battle. As an Instructor, you will pass on your experience and expertise that will benefit the grooming of future specialist.

Engineering Specialist

As an Engineering Specialist, you work on a wide range of high-tech equipment, from tanks and weapons to communications and information systems. You will provide expertise to maintain our defence technology and ensure the function and performance of sophisticated electronics.

Non Combat Specialist

You stock the right supplies at the right time for the safety and survival of our forces. Well trained in the latest IT and logistics management systems, you will purchase, monitor and deliver a wide range of supplies to our troops. So whether you are maintaining a stockpile of essential supplies or distributing them, your job is an incredibly important one. The much needed support you provide sustains our operational readiness. Our supply chain management system is one of the best in the world and as part of the logistics teams, you contribute to the efficiency of our organisation.

Combat-Technical Specialist

As a 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.

Operational-Technical Specialist

As an Operational-Technical Specialist, you will work in the specialised Command, Control and Communication environment. In this exciting job, you will be co-ordinating all airborne missions and executing deployment of our air defence weapon systems. You will also be responsible for servicing and maintaining highly sophisticated equipment, including state-of-the-art communications systems, advanced radar tracking and sensor systems.

Technical Specialist

As a 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 in the fields of telecommunications, radar, engines and weapon systems.

Career Advancement

After acquiring sufficient skills in the respective specialist fields, graduates will be eligible for professional upgrading to higher vocational levels corresponding to higher appointments. Those with outstanding performance, leadership qualities and management abilities may also be converted to Officers.

Application Procedure

Applicants are requested to apply PERSONALLY after the release of the GCE O Level Examination results at:

SAF Careers Centre
3 Depot Road #01-66
Singapore 109680

All applications to this Scheme are independent of those who applied through the Ministry of Education's Joint Admissions Exercise (JAE). You are therefore advised to apply for courses under the JAE in addition to your application to the SAF Careers Centre. For enquiries, please contact the SAF Careers Centre at the following telephone numbers:

Army : 1800 - 6872769
Navy : 1800 - 2780000
Air Force : 1800 - 2701010

Summary

In summary, the Joint Polytechnic-SAF Diploma Scheme (JPSDS) is a career plan that allows you to study for a diploma course of your choice and be financially independent at the same time. Once you obtain your diploma, your future is secure with an exciting and challenging career awaiting you in the Singapore Armed Forces.



Furthering Your Education

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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 Sturt University
- Charles Darwin University
- Curtin University of Technology
- Deakin University
- Edith Cowan University
- Flinders University
- Griffith University
- International College of Hotel Management
- International College of Management, Sydney
- 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
- University of the Sunshine Coast
- 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 #
- Fairleigh Dickinson University - Vancouver
- 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 Huddersfield
- 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 Sheffield
- 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:

- University of Birmingham
- University of Durham
- University of Exeter
- University of Leicester
- University of London: King's College
- University of London: University College
- 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 Pacific University
- Indiana University, Purdue University, Indianapolis (IUPUI)
- Johnson & Wales University
- Linfield 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 University of Applied Sciences

GERMANY

- State Academy of Fine Arts, Stuttgart

HONG KONG (SAR)

- City University of Hong Kong

IRELAND

- Athlone Institute of Technology

ITALY

- Domus Academy

MAURITIUS

- University of Mauritius

NETHERLANDS

- Eindhoven Design Academy (The Design Academy)

NEW ZEALAND

- Auckland University of Technology
- 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

- Swiss Hotel Association, Hotel Management School at Les Roches
- International Hotel Management Institute, Lucerne
- International Tourism Institute, Lucerne
- University Centre Cesar Ritz

PROFESSIONAL BODIES

- Association of Chartered Certified 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 qualification before deciding on a university of choice.

As a general rule, for North American universities that do not enter into institutional agreement with us on credit exemptions and transfer arrangements, most of them welcome applications from TP students who will be evaluated on a case-by-case basis.

PROFESSIONAL DEVELOPMENT CENTRE

The Professional Development Centre (PDC) of Temasek Polytechnic was formed in April 1999 (then known as Continuing Education Centre). The Centre's key objective is to offer training opportunities for adults to upgrade their skills and knowledge, both for their personal development, as well as for them to be competent at the workplace.

Understanding the need to equip adults with the relevant skills and knowledge that are contextualised for the workplace and industry, PDC has since expanded its scope to provide training at many levels that is aligned to the needs of industry. To ensure that our programmes stay relevant and current, PDC forms strategic partnerships with key industry players and employers to design the programmes.

Services

PDC offers certified public-run courses which are designed to equip the workforce with necessary employability, industry and occupational skills to remain relevant at the workplace. Additionally, PDC customises in-house-training programmes for organisations that wish to upgrade the skills and knowledge of their staff (eg, executive development programmes).

To date, PDC has trained 14,000 officers in the following areas:

- 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

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 qualification and conducts customised training programmes for organisations. The levels of Security WSQ offered are:

1. Certificate in Security Operations
2. Advanced Certificate in Security Supervision
3. Diploma in Security Management

SII also serves 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.

Corporate Information

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Board of Governors

Chairman

Mr Seah Moon Ming
Deputy CEOST Engineering Ltd;
President
ST Electronics Ltd

Members

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Principal & CEO
Temasek Polytechnic

Mr Keith Budge
Director
Eleos (Singapore) Pte Ltd

Dr Foong Wai Keong
President & CEO
Ecquaria Technologies Pte Ltd

Mr Gan Chin Huat
Deputy Director, Schools East
Schools Division
Ministry of Education

Mr Gay Chee Cheong
Chairman
Board of Directors
Radcliffe Invertron Pte Ltd

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Amoy Canning Corporation (S) Ltd

Mr Low Cheaw Hwei
Senior Global Account Director
Senior Global Design Director
Philips Electronics Singapore Pte Ltd

Mr Poon Hong Yuen
Director, Economic Programmes
Ministry of Finance

Professor Seeram Ramakrishna
Vice President (Research Strategy)
Office of Deputy President (Research &
Technology)
National University of Singapore

Mr Shaun Seow
Deputy Group CEO (News, Radio & Print)
Mediacorp Pte Ltd

Mr Sim Kay Wee
Consultant

Mr Freddy Soon
Senior Vice President
Group Communications & Relations
Hyflux Ltd

Mr Sophian Abdul Rahman
General Manager & Director
CapitaLand Amanah Pte Ltd

Mr Adrian Tan
Chief Executive Officer
The Ad Planet Group

BG Tan Yih San
Future Systems Architect
Ministry of Defence

Mr T K Udairam
Chief Executive Officer
Changi General Hospital

Mr Zee Yoong Kang
Chief Executive Officer
Employment & Employability Institute

Administration Committee

Chairman

Mr Seah Moon Ming
Deputy CEO
ST Engineering Ltd;
President
ST Electronics Ltd

Deputy Chairman

Mr Sim Kay Wee
Consultant

Members

Mr Boo Kheng Hua
Principal & CEO
Temasek Polytechnic

BG Tan Yih San
Future Systems Architect
Ministry of Defence

Mr Adrian Tan
Chief Executive Officer
The Ad Planet Group

Secretary

Mrs Chua Seow Ying
Director
Human Resource & Staff Development
Temasek Polytechnic

Senate

Chairman

Mr Boo Kheng Hua
Principal & CEO

Deputy Chairman

Mr Edmond Khoo
Deputy Principal
Director, Temasek Humanities & Social Sciences
School

Secretary

Ms Sharon Soh
Registrar
Director, Student & Alumni Affairs Department

Permanent Members

Mrs Lay-Tan Siok Lie
Deputy Principal
Director, Temasek Engineering School

Mrs Soon-Ong Meng Wan
Director, Temasek Applied Science School

Mr Daniel Yeow
Director, Temasek Business School

Mr Moses Wong
Director, Temasek Design School

Ms Lim Sok Keow
Director, Temasek Informatics & IT School

Appointed Members (Term of Office: 21 April 2008 – 18 April 2010):

Mr Tan Dek Yam
Director, Fast Central Office
Director, Computer & Information Systems

Mrs Sally Chew
Director, International Relations & Industry
Services

Mr Chan Kah Guan
Director, Professional Development Centre
Director, Planning & Development

Mr Albert Yeo Boon Leong
Director, Strategic & Quality Development

Mr Lim Thim Veng
Chairman, Academic Programme Validation
Committee
Chairman, Educational Quality Review Committee

Elected Members (Term of Office: 21 April 2008 – 18 April 2010):

Dr Vijayakumari Seevaratnam
Course Manager, Diploma in Biomedical Science
Course Manager, Diploma in Consumer Science
& Technology
Temasek Applied Science School

Mr Chng Jiun Yih
Manager, Academic Support
Temasek Business School

Mr Eric Koh Cheok Howe
Deputy Director, Academic & Curriculum
Development
Temasek Design School

Mr Song Kwok Yuen
Course Manager, Diploma in Biomedical
Informatics & Engineering
Temasek Engineering School

Mr Ang Teck Hua
Course Manager, Diploma in Psychology Studies
Temasek Humanities & Social Sciences School

Ms Mak Yoke Lai
Course Manager, Diploma in Cyber & Digital
Security
Temasek Informatics & IT School

School Advisory Committees

TEMASEK APPLIED SCIENCE SCHOOL

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Chief Executive Officer
Changi General Hospital

Deputy Chairman

Mrs Soon-Ong Meng Wan
Director
Temasek Applied Science School

Members

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Director
Allied Health
Singapore General Hospital and
Chief Pharmacist
Ministry of Health

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Director
Biomedical Sciences
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Mr Kevin Harty
Managing Director
Nestle R&D Center (Pte) Ltd

Mr Vincent Hingot
Site Director
GSK Biologicals Task Force
Glaxo Wellcome Manufacturing Pte Ltd

Ms Dawn Lee
General Manager – Product Development and
Marketing
Eu Yan Sang International Ltd

A/P Lee Chee Wee
Associate Professor
Department of Physiology
Faculty of Medicine
National University of Singapore and
Chief Executive Officer
Lynk Biotechnologies Pte Ltd

Mr Lucas Ng Hong Kiang
General Manager (Plant)
Petrochemical Corporation of Singapore (Pte) Ltd

Dr Ngiam Tong Tau
Executive Vice President
United Engineers Limited

Mr Freddy Soon
Senior Vice President
Group Communications & Relations
Hyflux Ltd

TEMASEK BUSINESS SCHOOL

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Deputy Group CEO
(News, Radio & Print)
MediaCorp Pte Ltd

Deputy Chairman

Mr Daniel Yeow
Director
Temasek Business School

Members

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Group General Manager
Corporate Communications and Investor
Relations
Wearnes (WBL Corporation Limited)

Mr Richard Chua Khing Seng
Managing Director
Yusen Air & Sea Service (S) Pte Ltd

Mr Christopher W. Hart
Senior Vice President
Operations Asia/Pacific
Four Seasons Hotels and Resorts

Mr Roger Khoo
Chief Executive Officer
GasHub Pte Ltd

Mr Kon Yin Tong
Partner
Foo Kon Tan Grant Thornton

Mr Peter Cuthbert Low
Partner
C/o Colin Ng & Partners

Mr Allein Moore
Publisher/CEO
Blueprint Media Pte Ltd

Mr Dhirendra Shantilal
Senior Vice President, Asia Pacific
Kelly Services (Singapore) Pte Ltd

Mr Sim Kay Wee
Consultant

Mr Brendan Wong Phoong-yee
Director
Corporate Communications Department
Temasek Polytechnic

TEMASEK DESIGN SCHOOL

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Mr Low Cheaw Hwei
Senior Global Account Director
Senior Global Design Director
Philips Electronics Singapore Pte Ltd

Deputy Chairman

Mr Moses Wong
Director
Temasek Design School

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Managing Director
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
Chief Executive Officer
The Ad Planet Group

Mr Bert Tan
Director
Bodynits International Pte Ltd

Mr Sebastian Tan
Group Managing Director
Shooting Gallery Asia Pte Ltd/
Wishing Well

Mr Hensley Teh
Managing Director
m)phosis Pte Ltd

Mr Daniel Yam
Director
Advance Apparel Pte Ltd

TEMASEK ENGINEERING SCHOOL

Chairman

Prof Seeram Ramakrishna
Vice-President (Research Strategy)
Office of Deputy Vice-President (Research and
Technology)
National University of Singapore

Deputy Chairperson

Mrs Lay-Tan Siok Lie
Deputy Principal and
Director
Temasek Engineering School

Members

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Fellow
Chartered Semiconductor Manufacturing Ltd

Dr Chia Kay Hua, Jeremy
Managing Director
Utopia-Aire Pte Ltd

Assoc Prof Chong Chee Leong
Dean
School of Science & Technology
SIM University

Mr Chua Leong Chuan, Jeffrey
Managing Director
CPG Facilities Management Pte Ltd

Mr Chue Fook Chee
Chief Operating Officer
CNA Group Ltd

Assoc Prof Ho Hiang Kwee
Director
Energy Systems Laboratory
Division of Thermal & Fluids Engineering
School of Mechanical & Aerospace Engineering
Nanyang Technological University and
Centre Director
A*STAR SINERGY Centre

Mr Kon Yin Tong
Managing Partner
Foo Kon Tan Grant Thornton

Dr Kwok Wai Onn, Richard
Senior Vice President/Chief Technology Officer
Singapore Technologies Kinetics Ltd

Mr Lim Yeow Khee
Advisor
Singapore Institute of Aerospace Engineers

Mr Seah Soon Huat
Vice President, Base Maintenance
SIA Engineering Company Pte Ltd

Mr Sng Hee Meng
Executive Vice President
Singapore Sales & Service Operation
Yokogawa Engineering Asia Pte Ltd

Mr Sophian Abdul Rahman
General Manager & Director
CapitaLand Amanah Pte Ltd

Mr Tan Teik Seng
Consultant
Inspiraz Technology Pte Ltd

Mr Wu Tek Ming
Senior Vice President (Auditing Group)
TÜV SÜD PSB Pte Ltd

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National University of Singapore

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Division Head
Division of Psychology
School of Humanities and Social Sciences
Nanyang Technological University

Dr Chiang Hai Ding
Board Director
Centre for Seniors

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Chief Psychologist
Ministry of Defence

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Chief Executive Officer
OTi Consulting Pte Ltd

BG Tan Yih San
Future Systems Architect
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Tsao Foundation

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Ecquaria Technologies Pte Ltd

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Country General Manager
Emerging Economies
Apple Computers South Asia Pte Ltd

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Oracle Corporation Singapore Pte Ltd

Mr Kwa Kim Chiong
Chief Executive Officer and Founder
JustLogin Pte Ltd

Dr Leong Mun Kew
Chief Technology Officer
Chief Information Officer-designate
National Library Board

Mr Stephen Lim
Chief Executive Officer
SQL View Pte Ltd

Mr Paul Ng
Deputy Director
Manpower Development
Infocomm Development Authority of Singapore

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Director (Economic Programmes)
Ministry of Finance

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Senior Vice President
Information Systems & Program Office
StarHub Ltd

Ms Jessica Tan
Managing Director
Microsoft Singapore Pte Ltd

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Vice President and GM Asia Publishing
Electronic Arts

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Managing Director
BT Frontline Technologies Pte Ltd

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School
Director in-charge, Innovation & Entrepreneurship

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Director, Temasek Engineering School
Director-in-charge, Office of Research &
Technology

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Registrar
Director, Student & Alumni Affairs

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Director, Temasek Applied Science School

Mr Daniel Yeow
Director, Temasek Business School

Mr Moses Wong
Director, Temasek Design School
Director, >60 Design Centre
Director-in-charge, China Focus

Ms Lim Sok Keow
Director, Temasek Informatics & IT School

Mrs Lily Teo
Director, Finance & Administration
Director-in-charge, Office of Strategic Facilities
Development

Mrs Chua Seow Ying
Director, Human Resource & Staff Development

Mr Tan Dek Yam
Director, Computer & Information Systems
Director, FAST Central Office

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 Chan Kah Guan
Director, Professional Development Centre
Director, Planning & 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

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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

Pharmaceutical Science

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 Yeow Aik Liang, Daniel
BBA, MBA (NUS)

Deputy Directors

Mr Chen May Chang, Jerry
BSc(Hons), MSc(IE)

Mrs Lai-Low Sock Cheng
BSc, Post GD in Systems Analysis, MBA

Mr Lim Thiam Lee, Philip
BSc, MSc, CHA, CFBE

Dr Tan Kim Soon, Arnold Marc
BA, MBus, DBA

Course Managers

Accounting & Finance

Ms Khoo Sor Hwa
BBA (Hons)

Business

Dr Sim Heng Chye, Matthew
BE (1st Class Hons) (UQ), MBA (NUS),
Ph.D. (UniSA)

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

Mr Looi Kwok Peng
LLB (Hons), Advocate & Solicitor
FSIArb

Leisure & Resort Management

Mr Desmond Lim
BA, BSocSci (Hons), MSocSci

Logistics & Operations Management

Mr Goh Hock Kee
BA, MSc

Marketing

Ms Sue Lou
BA, Grad Dip M, Dip Visual Com,
MA (Communication Management)

Retail Management

Mr Geoffrey da Silva
BBA (Singapore), MBA (NUS),
Fellow, Chartered Inst of Marketing (UK)

THE 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), M (Design)

Interactive Media Design

Mr Soh Yong Hern
BFA (Graphic Design)

Interior Architecture & Design

Mr Tan Ban Soon
MBA, MA (Interior Design)

Moving Images

Mr Eric Koh Cheok Howe
BSc (Hons), MSc (H.F.Eng)

Product & Industrial Design

Ms Tia Boon Sim
MSc (Pratt), B.Arch (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
**Aerospace Electronics
Computer Engineering
Electronics**

Mrs Ng-Tia Too Lam, Patricia
BEng (Hons)

**Aerospace Engineering
Mechatronics**

Mr Yue Keng Mun
BEng (Hons), MSc (ME)

**Aviation Management & Services
Integrated Facility Design & Management
Intelligent Building Technology**

Mr Chan Kim Kai
BSc (ME), MSc (Architecture), MAIIB

Biomedical Informatics & Engineering

Mr Song Kwok Yuen
BEng (Hons), MBA

Business Process & Systems Engineering

Mr Chia Sie Yong
BEng (Hons), MSc (ISE)

Clean Energy

Microelectronics

Mr Wong Cho Loo
BSc (Hons), MBA

Electronics

Media & Communication Technology

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

TEMASEK HUMANITIES & SOCIAL SCIENCES SCHOOL

Director

Mr Edmond Khoo
BEcon (Hons)

Deputy Director

Mr Ben Lim
BSc (Hons), MBA (Distinction), MEd

Assistant Director

Dr Loke W H
BA (Psych; Magna Cum Laude), PGDip (Ed),
MBus (IT), MSc (HRM),
MA (Psych), PhD (Psych)

Course Managers

Psychology Studies

Mr Ang Teck Hua
BComp, MEd (Ed Psych)

Gerontological Management Studies

Ms Chan Lai Pheng
BA (Hons), MA (Comm Mgt)

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

Ms Cheng Huey Chen
BSc (Hons), MSc

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 Eng Pin Kwang
BSc (Comp & Info Sc), MSc (CS), PhD (CS)

Academic Calendar 2009/2010

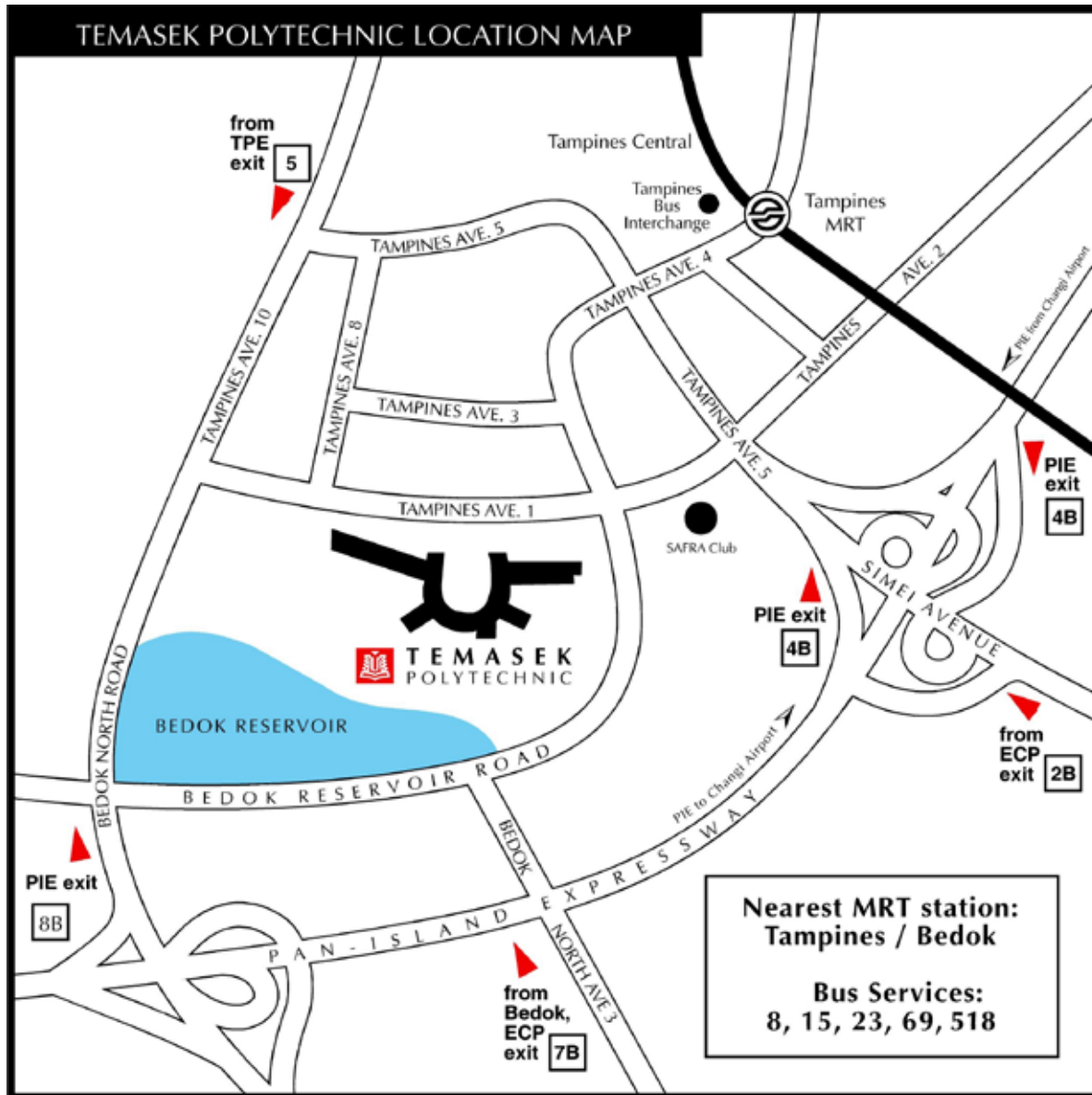
Semester 1

Term 1	Mon, 20 Apr 2009 – Fri, 5 Jun 2009
Break	Sat, 6 Jun 2009 – Sun, 21 Jun 2009
Term 2	Mon, 22 Jun 2009 – Fri, 14 Aug 2009
Study	Sat, 15 Aug 2009 – Thu, 20 Aug 2009
Semestral Examinations	Fri, 21 Aug 2009 – Fri, 4 Sep 2009
Vacation	Sat, 5 Sep 2009 – Sun, 18 Oct 2009
Supplementary Assessments/ Examinations	Fri, 11 Sep 2009 – Fri, 25 Sep 2009

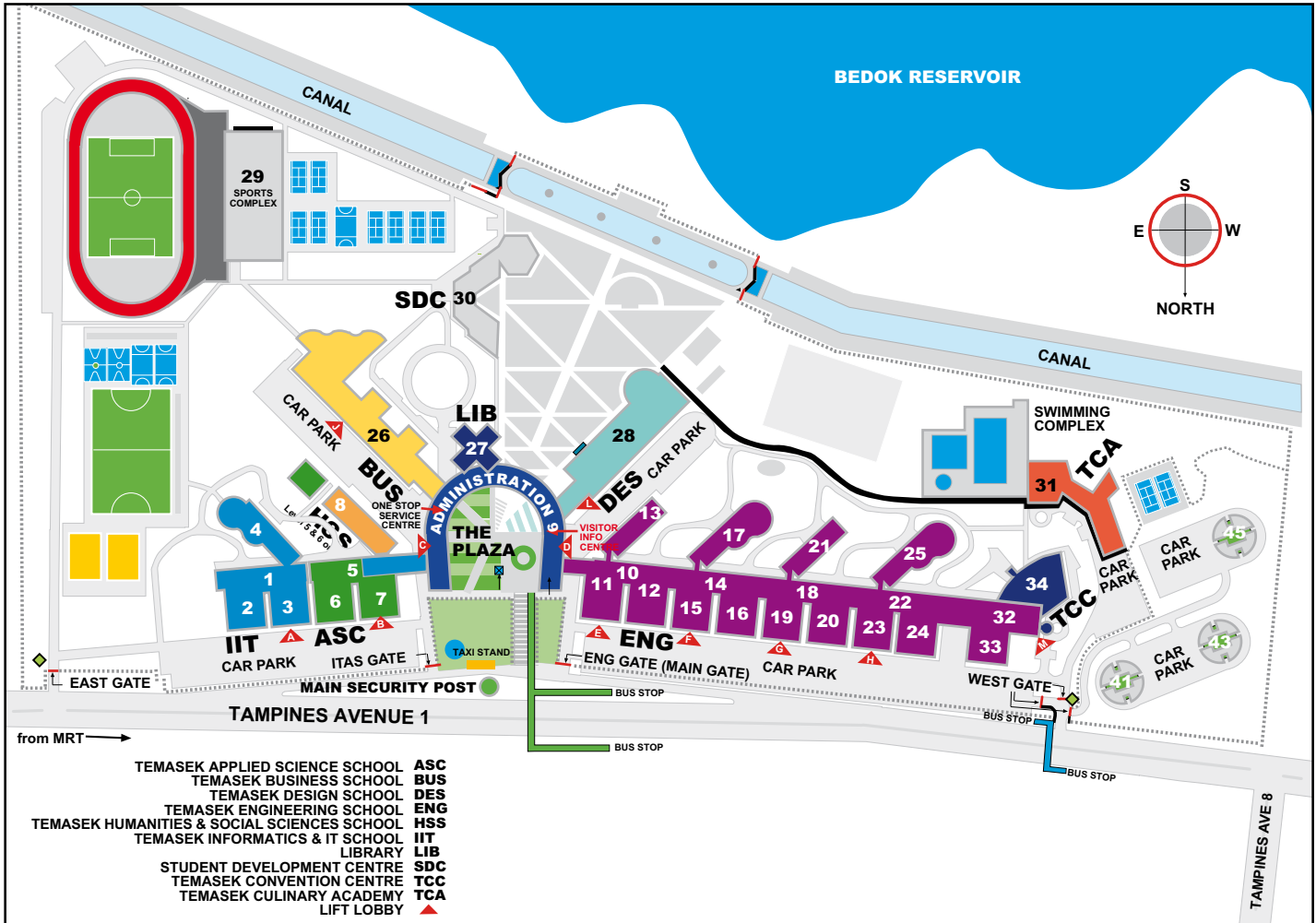
Semester 2

Term 3	Mon, 19 Oct 2009 – Fri, 11 Dec 2009
Break	Sat, 12 Dec 2009 – Sun, 27 Dec 2009
Term 4	Mon, 28 Dec 2009 – Fri, 12 Feb 2010
Study	Sat, 13 Feb 2010 – Sun, 21 Feb 2010
Semestral Examinations	Mon, 22 Feb 2010 – Mon, 8 Mar 2010
Vacation	Tue, 9 Mar 2010 – Sun, 18 Apr 2010
Supplementary Assessments/ Examinations	Fri, 12 Mar 2010 – Fri, 26 Mar 2010

Getting to TP



Campus Map



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Notes

Notes



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bringing education to life and life to education