

Financial Business Informatics

OVERVIEW



Banks all over the world are leveraging on Information Technology to enable digital payments and professionals in the financial services industry are also using blockchains to record transactions and explore the use of cryptocurrencies. There is a strong demand for professionals with competent information technology skills and a sound understanding of financial business processes.

In this course, you will obtain a good understanding of processes such as e-banking through the training you receive in business processes, systems and IT management. Your knowledge of IT and financial services will give you a distinct advantage in seeking employment in financial organisations or help you establish a financial technology (FinTech) start-up venture.

Your Journey

Year 1

Strong Foundation Skills

Learn to develop your own mobile and web applications with the coding and user interface skills you acquire. Also, learn the fundamentals of networking and discover how to create your own analytics dashboard.

Year 2

Fintech and Investments

Discover the exciting world of Fintech innovations and how the financial world is being disrupted. Pick up skills that are in high demand such as Open Banking App development, investment portfolio analytics, risk and governance in finance as well as digital payment and lending.

Year 3

Work in Financial Institutions and Fintech Start-ups

Learn advanced skills and apply your financial knowledge and IT skills in your internships at banks, financial institutions and fintech startups. These internships could be in Singapore and/or overseas.

ENTRY REQUIREMENTS

Minimum Entry Requirements

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

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

To be eligible for selection, applicants must also have sat for one of the following subjects: Additional Combined Science, Additional Science, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Human & Social Biology, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry, Biology).

See also the minimum entry requirements for:

- ITE Certificate Holders
- International Students

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COURSE STRUCTURE

TP FUNDAMENTALS (TPFun) SUBJECTS

Subject code	Subject	Level	Credit Units
CCS1006	<p>Communication & Information Literacy</p> <p>In this subject, you will learn how to conduct research for relevant information and validate information sources. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the Message, Audience, Purpose and Strategy (MAPS) when writing and delivering oral presentations.</p>	1	2
CCS1007	<p>Workplace Communication</p> <p>In this subject, you will be taught how to conduct effective meetings while applying team communication strategies and the skills for documenting meeting notes. You will be required to write clear emails, using the appropriate format, language, tone and style for an audience. You will also be taught to communicate appropriately in and for an organisation when using various platforms. In all aspects, the principles of applying Message, Audience, Purpose and Strategy (MAPS) will be covered.</p>	1	2
CCS1008	<p>Persuasive Communication</p> <p>In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The Message, Audience, Purpose and Strategy (MAPS) will also be applied when engaging in verbal and written communication.</p>	1	2
GCC1001	<p>Current Issues & Critical Thinking</p> <p>This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals.</p>	1	2

CIN1001	<p>Innovation & Entrepreneurship</p> <p>The Innovation & Entrepreneurship subject is designed for learners from all disciplines to embrace innovation in either their specialised fields or beyond. You will first learn the Design Thinking framework, where you will develop problem statements and ideate solutions. Next, you will discover the tools for prototyping and innovation, such as 3D printing and laser cutting, at TP's Makerspace+ facility. Finally, you will acquire commercial awareness through the LEAN Startup framework of idea crystallisation, prototype building, customer testing and validation, refinement of business model canvas, and crowdfunding or crowdsourcing avenues.</p>	1	2
LEA1011	<p>Leadership: Essential Attributes & Practice 1</p> <p>LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.</p>	1	1
LEA1012	<p>Leadership: Essential Attributes & Practice 2</p> <p>LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.</p>	1	1
LEA1013	<p>Leadership: Essential Attributes & Practice 3</p> <p>LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence.</p>	1	1
LSW1002	<p>Sports & Wellness</p> <p>This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living.</p>	1	2
MCR1001	<p>Career Readiness 1</p> <p>This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics.</p>	1	1

MCR1002	<p>Career Readiness 2</p> <p>This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics.</p>	1	1
MCR1003	<p>Career Readiness 3</p> <p>This Career Readiness programme comprises three core subjects – Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics.</p>	1	1
CGS1002	<p>Global Studies</p> <p>This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment.</p>	1	3
CGS1003	<p>Managing Diversity at Work*</p> <p>This subject explores the concepts of identity, diversity and inclusion at the workplace. It examines the relationship between identity and diversity, the benefits and challenges of diversity and the strategies that promote inclusion and inspire collaboration in a diverse workplace. Examples of the elements of diversity covered in this subject include nationality, generation, ethnicity and gender.</p>	1	3
CGS1004	<p>Global Citizenship & Community Development*</p> <p>Students will examine the meaning and responsibilities of being a Global Citizen, in order to contribute towards a more equitable and sustainable world. In addition, students will learn how sustainable solutions can support community development, and, execute and critique a community action plan that addresses the needs of a specific community/cause.</p>	1	3
CGS1005	<p>Expressions of Culture*</p> <p>This subject provides a platform for an understanding of culture and heritage through modes of expression. Students will be introduced to global and local cultures via everyday objects, places and human behaviour seen through time and space. Students will explore issues and challenges in culture and heritage sustainability in community, national and global contexts.</p>	1	3
TGL1001	<p>Guided Learning</p> <p>The subject introduces students to the concepts and process of self-directed learning in a chosen area of inquiry. The process focusses on four stages: planning, performing, monitoring and reflecting. Students get to plan their individual learning project, refine and execute the learning plan, as well as monitor and reflect on their learning progress and project. The learning will be captured and showcased through a curated portfolio. The self-directed learning project will broaden and/or deepen a student's knowledge and skills.</p>	1	3

CSI3004	<p>Student Internship Programme</p> <p>This subject has a structured programme that will help to develop important workplace skills for application in a real work environment. The subject will cover a pre-internship training programme and a mentorship programme with the industry. The subject will also cover the roles and functions of an IT professional in an industry and ability to contribute effectively with a high level of professionalism in the workplace.</p>	3	16
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** Students must choose to take either one of these three subjects or TGL1001 Guided Learning.*

Diploma Subjects - Core Subjects

Subject code	Subject	Level	Credit Units
BAF1007	<p>Basic Business Finance</p> <p>This subject provides a general overview of the balance sheet and profit and loss statement of the company. It also provides you with a basic understanding of the sources and allocation of funds within a business enterprise, and an appreciation of some of the financial tools and techniques used by the financial manager in the management of funds and other financial resources.</p>	1	4
CIA1C07	<p>Logic and Mathematics</p> <p>This subject covers logic, sets, functions, recursion and graphs. It covers mathematical processes for developing algorithms in computing and other real-life applications. Topics covered include the fundamental mathematical concepts needed for computing.</p>	1	4
CIT1C19	<p>User Experience and Interface Design</p> <p>This subject introduces the concept of Human-Centered Design, and its practice to create useful digital products and interfaces that offer an enriching user experience (UX). The topics covered include designing interfaces, need findings, sketching and prototyping for interactive experiences, and usability testing.</p>	1	4
CIA1C11	<p>Data Visualisation and Analytics</p> <p>This subject covers the data analytics lifecycle, including gathering, cleaning, processing and visualising of data. Exploratory data analysis methods, descriptive and predictive analytics and the presentation of insights will also be covered.</p>	1	3
CIT1C18	<p>Computational Thinking</p> <p>This subject introduces students to the fundamentals of computational thinking and their application in developing programming solutions for problems. Topics covered include programming concepts, simple data structures and programming techniques.</p>	1	4
CIT1C14	<p>Data Structures and Algorithms</p> <p>The subject introduces students to the fundamentals of recursion and data structures in solving problems using a programming language. Topics covered include stacks, queues, linked lists, trees, searching techniques and sorting algorithms.</p>	1	4

CCF1C02	<p>IT Systems Security Essentials</p> <p>This subject introduces students to the key principles of information security namely confidentiality, integrity and availability and their application in various real world scenarios. Topics covered include IT law, international standards, security policies, procedures, processes to protect IT systems against cyber-attacks and information breaches and the architecture and organisation of the digital components of a computer system.</p>	1	4
CIA1C06	<p>Database Application Development</p> <p>This subject introduces the fundamental concepts of relational database systems, the design methods specific to relational database, database manipulation using a database query language, and the techniques of implementing relational databases. It will also cover implementation of simple applications to access relational database.</p>	1	3
CIT1C20	<p>Coding and Development Project</p> <p>This subject introduces students to coding principles and practices using an object-oriented approach. The subject also introduces the development of an IT application using the latest technologies. Topics covered include object and classes, composition, simple data structures, application architecture, design and development.</p>	1	4
CIT1C14	<p>Data Structures and Algorithms</p> <p>This subject introduces students to the fundamentals of recursion and data structures in solving problems using a programming language. Topics covered include stacks, queues, linked lists and trees. Searching techniques and sorting algorithms will also be covered.</p>	1	4
CFI2C11	<p>Banking Processes and Automation</p> <p>This subject covers retail banking processes, design thinking model and analysis techniques. It will also cover VBA programming and use advance Excel macros creation to streamline retail operational processes as well as implement data processes automation.</p>	2	4
CFI2C12	<p>FinTech Innovations</p> <p>This subject introduces students to core financial services, banking and FinTech business models. Students will also learn and compare the current financial processes to new Fintech business models. Disruptive trends like digital payments, blockchain and tokenisations, crowdfunding, Online lending, insurtech etc will also be covered.</p>	2	4
CFI2C13	<p>Open Banking App Development</p> <p>This subject introduces students to the different types of financial banking instruments available in the financial system. It will also cover banking concepts and Open Banking API infrastructure, enabling students to build customer-centric platforms.</p>	2	4
CIT2C1	<p>Mobile App Development</p> <p>This subject introduces the techniques and practices of programming and implementation of applications on multiple devices and platforms. Topics covered include an overview of how mobile applications are used in various industries, user interface and mobile application development across platforms.</p>	2	4

CFI3C01	<p>Risk & Governance</p> <p>This subject introduces the Monetary Authority of Singapore (MAS) regulations and risk management guidelines for financial institutions. Topics covered include the MAS Act, internal controls for risk management, credit risk management, market risk management, operational risk management, technology risk management, and audit considerations.</p>	3	4
CFI3C04	<p>Wealth and Portfolio Management</p> <p>This subject introduces the financial planning concepts and techniques used in designing a portfolio for high net worth clients and organisations. This subject will also cover various models of portfolio management. Topics covered include overview of the wealth management advisory process, investment and portfolio management, client relationship management, investment fund products and industry-company analysis using current tools and techniques.</p>	3	4
CMP3801	<p>Major Project</p> <p>This subject involves the integration and application of knowledge to a project in a practical learning situation. The subject will provide an opportunity for the development of a practical understanding of the products, methodologies, processes, systems, project management and presentation skills.</p>	3	10

Diploma Subjects - Elective Subjects

Digital Payment

Subject code	Subject	Level	Credit Units
CFI2E06	<p>Digital Payment and Lending</p> <p>This subject introduces students to the concepts, instruments and technologies used in lending & payment services in the financial market. It also covers the use of FinTech and disruptive ideas that are changing the landscape of lending & payment services.</p>	2	4
CFI2E07	<p>Distributed Ledgers and Blockchain</p> <p>This subject introduces students to the concept of distributed ledgers and the technical principles and implementation of Blockchain. Students will also develop an understanding of the concept of ledgers decentralisation, its impact and relationship with blockchain technology.</p>	2	4

Business Analytics

Subject code	Subject	Level	Credit Units
CDA2C02	<p>Data Mining and Business Analytics</p> <p>This subject introduces the fundamental concepts of machine learning. Topics covered include supervised and unsupervised learning and classification.</p>	2	4

CDA2C04	<p>Data Storytelling</p> <p>This subject covers graphing fundamentals, graphing properties and building dashboards for reporting purposes using relevant statistical modelling and analysis techniques. The subject also introduces the knowledge and skills to apply the data storytelling framework and principles of data visualisation to enable business users to communicate and narrate findings relevant to business contexts.</p>	2	4
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Graduation Requirements

Cumulative Grade Point Average	min 1.0
TP Fundamental Subjects	40 credit units
Diploma Subjects - Core Subjects - Elective Subjects	72 credit units min 8 credit units
Cross-Disciplinary Subjects	min 9 credit units
Total Credit Units Completed	min 120 credit units