



- Business Informatics
- Business Intelligence & Analytics
- Cyber Security & Forensics

- Financial Informatics
- Infocomm & Security
- Information Technology

**Information Technology (IT) is evident in every aspect of our daily lives, whether at work or play. When you get a quality education in IT or any of its sub-disciplines, career opportunities in every sector and every corner of the economy will be opened to you. With so much to learn and even more to aspire for, you will want to zoom in on an area of study that interests you the most, confident that it is in line with what the industry needs. That is why at NYP, we offer six innovation-oriented IT diploma courses at the School of Information Technology (SIT) — all designed to train you to be a skilled IT professional and a worthy candidate for higher education in related fields.**

### INNOVATION-BASED LEARNING

Your learning journey at SIT will be an exciting experience in innovation, filled with opportunities to learn and work with state-of-the-art technologies.

Develop your full potential via our well-balanced curricula that integrate broad-based core knowledge and skills with real-life applications and industry relevant practices. You will also learn to design innovative and user-centric IT solutions using the design thinking approach and be updated on the latest technological developments and industry trends with additional specialist modules.

Your learning experience will revolve around the Centre for IT Innovation, a key platform for staff and students to develop innovative and effective IT software solutions and services for the industry. In the process, you will receive valuable hands-on experience working on live projects, thereby enhancing your technical skills, domain knowledge and project management capabilities.

SIT graduates are knowledgeable, forward-looking and versatile professionals who are able to embrace dynamic changes and contribute innovatively to the digital future. You will also be readily admitted for further studies at renowned local and overseas universities with advanced standing. Many of our past graduates excel in their higher education pursuits, obtaining their degrees with high honours.

### BEYOND THE CLASSROOM

At SIT, you will enjoy a vibrant school life that goes beyond the classroom. Develop life skills and leadership qualities with a global perspective through our many overseas attachments, student club activities, community outreach projects, and IT and entrepreneurship competitions, both local and international. Such learning experiences nurture you to be a well-rounded IT professional who is prepared to face future challenges, locally and globally.

## WHY CHOOSE SIT?

- ✓ **A place you can call home**  
Be immersed in a fun yet enriching learning environment! We will nurture your potential through projects, seminars, competitions, work attachments and university immersions, both local and overseas. SIT also maintains a lifelong relationship with you after graduation.
- ✓ **Industry-relevant**  
Gain valuable experience developing IT software products and solutions with the latest gadgets and emerging technologies used by the industry at our very own Centre for IT Innovation.
- ✓ **Industry-ready**  
Our graduates are highly sought after with many attaining professional certifications even before they graduate.
- ✓ **Abundant scholarship opportunities**  
Industry leaders collaborate with us to award bond-free scholarships to aspiring students. Enrol in our Talent Development Programme and join the ranks of many outstanding alumni who are currently scholars in prestigious local and overseas universities.



### STRONG INDUSTRY COLLABORATIONS

A hallmark of SIT is our strong collaboration with the industry, which in turn provides you with realistic and relevant learning experiences. Our partners include technology leaders such as Accenture, Alteryx, Centre for Strategic Infocomm Technologies (CSIT), Cisco Systems, Cloud Security Alliance (CSA), Defence Science & Technology Agency (DSTA), Esri, IBM, iSentia, Microsoft, NCS, Oracle, Red Hat, Samsung, SAP,

SAS, Singapore Land Authority, Splunk, ST Electronics and StarHub.

Our technology innovation centres are jointly set up with industry partners to spearhead the development of technologies in the areas of Big Data Analytics, Cyber Security, Enterprise Mobility, Social Media Technologies, Cloud Computing, Next Generation Network Technologies, Wireless & Mobile Computing, Internet of Things, Web Services, Enterprise Business Solutions and

Financial Technologies. As you work full-time on real-life projects in these centres, you will sharpen your technical knowledge, business acumen and project management skills.

The knowledge that you will gain will prepare you for various globally recognised professional certification courses, which are offered by technology leaders such as IBM, Microsoft, Oracle, SAP, Cisco Systems and Red Hat. Such certifications will enhance your competitive edge when you step into the workforce.

## DIPLOMA IN BUSINESS INFORMATICS



Enterprises are always concerned about operational efficiency and the bottom line, and you will be the IT professional helping them achieve their business goals and give them a winning edge. The Diploma in Business Informatics course trains you to drive businesses with IT and innovative services by combining knowledge from both the IT and business worlds.

Through a progressive and integrative approach with hands-on

projects and case studies, you will learn how business concepts and IT complement each other successfully for business innovations. These include sales, marketing, accounting, finance, business management, e-business and start-ups. The course readies you to excel in entrepreneurship, service innovation, business development and management, business applications design and development

## WHY THIS DIPLOMA?

- IT and business is the best combination for further studies and career opportunities in either or both disciplines, offering broad-based understanding of technologies and platforms for developing innovative solutions for businesses.
- Learn how businesses can leverage IT to improve customer experiences and gain competitive advantage.
- Identify new business opportunities and start your entrepreneurial journey with us!

## IT WILL ENABLE YOU TO...

- Exercise core expertise in IT and Internet technologies.
- Have a comprehensive understanding of entrepreneurship and new web technologies for business development, social media marketing and web-enabled e-business and e-services.
- Utilise best practices in IT and business, synergising business concepts with technical expertise across various industry sectors.
- Deliver IT-enabled and IT-driven business solutions in innovative ways.
- Gain essential life skills in creative and critical thinking, team building, self-directed learning, effective communication and entrepreneurship.

## DURATION

Three academic years on a full-time basis.

## FURTHER EDUCATION

You have opportunities to pursue further studies with advanced standing in relevant degree courses at reputable universities in Singapore, the UK, Australia, the US, Canada, New Zealand and others.

## CAREER PROSPECTS

Graduates of this course will be in high demand and can look forward to rewarding careers in positions such as:

- Business development managers
- E-business consultants
- Business applications specialists
- Services professionals and researchers
- Business analysts
- Techno-strategists
- Entrepreneurs

## ENTRY REQUIREMENTS<sup>^</sup>

You must have obtained the following minimum GCE 'O' Level results:

- **English Language (EL1)** Grade 1-7
- **Elementary/Additional Mathematics** Grade 1-6
- **Any two other subjects**, Grade 1-6

## COURSE STRUCTURE

### YEAR 1 – SEMESTERS 1 & 2

#### Core Modules

- BM0030** Business Communication 1
- BM0031** Principles of Accounting
- BM0032** Essentials of Marketing
- BM0034** Business Statistics
- BM0035** Principles of Economics
- IT1501** Computing Mathematics
- IT1506** Data Structures & Programming Techniques
- IT1507** Web Applications Development
- IT1606** Laws & Ethics of IT
- IT1608** Networking Essentials
- ITP182** Object-Oriented Programming & Project

#### General Studies\*

### YEAR 2 – SEMESTERS 1 & 2

#### Core Modules

- BM0036** Management Principles
- BM0501** Business Communication 2
- BM0518** Business Environment
- BM0519** Financial Management
- BM0522** International Business
- IT2601** Database Management Systems
- IT2604** Software Engineering Practices
- IT2605** Applications of Web Services
- ITP281** e-Business & Project
- ITP282** Enterprise Applications Development & Project

#### General Studies\*

### YEAR 3 – SEMESTERS 1 & 2

#### Core Modules

- BM0528** Teaching Enterprise Project (Practicum)
- IT3506** InfoSecurity Technology
- IT3691** Final Year Project
- IT3693** Overseas Internship Programme (12 weeks)
- IT3696** Overseas Internship Programme (24 weeks)
- IT3698** Internship Programme (24 weeks)
- IT3699** Internship Programme (12 weeks)
- ITP381** Business Informatics Project

#### General Studies\*

#### Prescribed Electives 1 and 2 (Choose one specialisation)

##### Entrepreneurship

- BM0505** Market Research
- BM0515** Entrepreneurship

##### Service Innovation

- BM0523** Services Marketing Management
- IT3651** Service Science and Innovation

#### Prescribed Elective 3 (Choose one module)

- IT2656** Mobile Services and Applications
- IT3556** Business Intelligence and Analytics
- IT3557** Cloud Computing for Business Applications

<sup>^</sup> Please refer to section on entry requirements for diploma courses for more details.

\* Students are to choose enrichment modules from clusters that include general knowledge and life skills, engineering, life sciences, digital media, business, health sciences and design.

For detailed module synopses, please refer to the online Prospectus at <http://www.nyp.edu.sg/about-nyp/nyp-overview/media-room/publications/prospectus.html>

# DIPLOMA IN BUSINESS INTELLIGENCE & ANALYTICS



Smart devices today are generating huge amount of content and data. With the expert eye of an analyst, this ocean of information can be turned into business intelligence that organisations can use to drive business decisions.

The Diploma in Business Intelligence & Analytics course is the first of its kind in Singapore with an emphasis on business and social analytics. Our curriculum empowers you to harness and aggregate data across

platforms like social media, web and mobile channels, leveraging IT, social media technologies and business analytics techniques to implement business solutions.

You will also pick up data management concepts and business analysis to gain higher knowledge in areas such as social media technologies, mobile computing and solutions, business intelligence, and analytics and visualisation.

## WHY THIS DIPLOMA?

- Acquire knowledge and skills in business, analytics, IT, social media and project management necessary for business intelligence and data mining.
- Learn to transform data into valuable insights to grow businesses.
- Enjoy flexibility in further studies and/or career choices in industries such as financial services, healthcare, retail and hospitality.

## IT WILL ENABLE YOU TO...

- Apply the essentials of social sciences and business concepts such as psychology, sociology, communication skills and consumer behaviour.
- Conceptualise and develop innovative applications delivered through social media channels and/or mobile platforms.
- Interpret data through techniques and concepts on data modelling, analytics and visualisation to derive useful insights for developing corporate strategies.
- Design enterprise collaboration applications to enable collaboration and networking across departments and divisions.

## DURATION

Three academic years on a full-time basis.

## FURTHER EDUCATION

You have opportunities to pursue further studies with advanced standing in relevant degree courses at reputable universities in Singapore, the UK, Australia, USA, Canada, New Zealand and others.

## CAREER PROSPECTS

You will be highly sought-after in all sectors of the business world and can expect a dynamic and rewarding career with industry leaders as:

- Business Intelligence Analysts
- Business Analytics Specialists
- IT Business Analysts
- Data Mining & Warehousing Specialists
- Web and Social Media Specialists
- Business Analytics Technology Consultants
- Data Scientists

## ENTRY REQUIREMENTS<sup>^</sup>

You must have obtained the following minimum GCE 'O' Level results:

- **English Language (EL1)** Grade 1-7
- **Elementary/Additional Mathematics** Grade 1-6
- **Any two other subjects**, Grade 1-6

<sup>^</sup> Please refer to section on entry requirements for diploma courses for more details.

## COURSE STRUCTURE

### YEAR 1 – SEMESTERS 1 & 2

#### Core Modules

<b>IT1321</b>	Programming Essentials
<b>IT1323</b>	Psychology & Sociology
<b>IT1324</b>	Law & Ethics of IT
<b>IT1325</b>	Computing Mathematics
<b>IT1331</b>	Object-Oriented Programming
<b>IT1333</b>	Business Statistics
<b>IT1334</b>	Consumer Behaviour
<b>IT1335</b>	Communication Skills 1
<b>ITP131</b>	Principles of Web Usability Design & Project
<b>ITP132</b>	Social Media Applications & Project

**General Studies\***

### YEAR 2 – SEMESTERS 1 & 2

#### Core Modules

<b>IT2322</b>	Quantitative Methods
<b>IT2323</b>	Database Management Systems
<b>IT2324</b>	Network Technology
<b>IT2325</b>	Communication Skills 2
<b>IT2331</b>	Industry Analysis
<b>IT2333</b>	Advanced Database Systems
<b>IT2334</b>	Software Engineering Practices
<b>IT2335</b>	Predictive Modelling
<b>ITP231</b>	Mobile Application Development & Project
<b>ITP232</b>	Business Analytics & Visualisation Project

**General Studies\***

### YEAR 3 – SEMESTERS 1 & 2

#### Core Modules

<b>IT3322</b>	Data Privacy and Security
<b>IT3331</b>	Final Year Project
<b>IT3333</b>	Overseas Internship Programme (12 weeks)
<b>IT3336</b>	Overseas Internship Programme (24 weeks)
<b>IT3339</b>	Internship Programme (12 weeks)
<b>IT3338</b>	Internship Programme (24 weeks)
<b>ITP331</b>	Enterprise Business Analytics Project

**General Studies\***

#### Prescribed Electives (Choose three)

<b>IT3351</b>	Analytics for Financial Services
<b>IT3353</b>	Analytics for Retail & Hospitality
<b>IT3355</b>	Social Media Analytics
<b>IT3357</b>	Digital Marketing & Analytics
<b>IT3358</b>	Geospatial Analytics
<b>IT3359</b>	Big Data Analytics

\* Students are to choose enrichment modules from clusters that include general knowledge and life skills, engineering, life sciences, digital media, business, health sciences and design.

For detailed module synopses, please refer to the online Prospectus at <http://www.nyp.edu.sg/about-nyp/nyp-overview/media-room/publications/prospectus.html>

## DIPLOMA IN CYBER SECURITY & FORENSICS



With the modern world so reliant on technology, what would happen if a major financial institution or government agency experiences a cybersecurity attack? Not only will it disrupt operations and services, there will also be a serious loss of trust from customers or the public. If your mission is to safeguard the connected world from malicious threats and advanced cyberattacks, choose the Diploma in Cyber Security & Forensics, which is designed to equip you with IT expertise and specialised knowledge.

You will be able to strategise, research, develop and deploy effective security solutions. Your training in digital forensics and

capabilities in evidence gathering will allow you to analyse and investigate digital frauds and crimes. Your studies will cover the latest trends and developments in cybersecurity, information security methods, processes and technologies, and topics critical to cyber defence, such as phishing, cryptography, steganography, digital forensics, zero-day attacks, system hardening and enterprise security.

You will be versed in the latest developments in secure software development, operations and network security management, enterprise security and governance, and digital forensic technologies and processes.

## WHY THIS DIPLOMA?

- Be at the forefront of IT security technology.
- Develop capabilities in digital forensics, in areas such as investigation and evidence gathering, and analysis of digital frauds and crimes.
- Be among the niche group of IT professionals who specialise in IT assurance and governance.

## IT WILL ENABLE YOU TO...

- Gain holistic knowledge in critical areas of enterprise information security and digital forensics from various perspectives.
- Harmonise security policies and governance, risk management and IT, when implementing effective cybersecurity solutions.
- Embrace the integrity and ethical responsibilities expected of an information security professional.
- Gain essential life skills in creative and critical thinking, team building, self-directed learning, effective communication and entrepreneurship.

## DURATION

Three academic years on a full-time basis.

## FURTHER EDUCATION

You have opportunities to pursue further studies with advanced standing in relevant degree courses at reputable universities in Singapore, the UK, Australia, the US, Canada, New Zealand and others.

## CAREER PROSPECTS

Cybersecurity is a key enabler of trusted e-services across public, private and people sectors. There is growing demand for qualified cybersecurity professionals across all industries, local and global, be it financial services, telecommunications, manufacturing, healthcare or defence. You can look forward to a challenging and fulfilling career in positions such as:

- Network security experts
- Information security consultants
- Digital forensic investigators
- Software security specialists
- Information systems auditors

## ENTRY REQUIREMENTS<sup>^</sup>

You must have obtained the following minimum GCE 'O' Level:

- **English Language (EL1)** Grade 1-7
- **Elementary/Additional Mathematics** Grade 1-6
- **Any two other subjects** Grade 1-6

## COURSE STRUCTURE

### YEAR 1 – SEMESTERS 1 & 2

#### Core Modules

- IT1521** Computing Mathematics 1
- IT1523** Programming Essentials
- IT1525** Communication Skills 1
- IT1528** Cyber Security Technology, Law & Ethics
- IT1531** Computing Mathematics 2
- IT1533** Network Technology
- IT1534** Cryptography and Applications
- IT1535** Communication Skills 2
- ITP191** Web Applications Development & Project
- ITP192** Object-Oriented Programming & Project

#### General Studies\*

### YEAR 2 – SEMESTERS 1 & 2

#### Core Modules

- IT2521** Database Management Systems
- IT2522** Risk and Incident Management
- IT2524** Operating Systems
- IT2525** Data Structures and Algorithms
- IT2533** Servers and Services Security Management
- IT2534** InfoSecurity Standards, Policies and Audit
- IT2535** Software Engineering Practices
- IT2537** Cyber Forensic Technologies
- ITP291** Network Security & Project
- ITP292** Applications Security & Project

#### General Studies\*

### YEAR 3 – SEMESTERS 1 & 2

#### Core Modules

- IT3523** InfoSecurity Governance
- IT3531** Final Year Project
- IT3533** Overseas Internship Programme (12 weeks)
- IT3536** Overseas Internship Programme (24 weeks)
- IT3538** Internship Programme (24 weeks)
- IT3539** Internship Programme (12 weeks)

#### General Studies\*

#### Prescribed Electives

(Choose three modules from the following specialisations)

#### Cyber Security

- IT3526** Cyber Security Attack and Defence
- IT3541** Digital Rights Management
- IT3542** IT Project Management IT3546 Cloud Computing Security
- IT3548** Mobile Security
- IT3549** Cyber Security Operations & Intelligence

#### Cyber Forensics

- IT3525** Cyber Forensic Process
- IT3543** Advanced Cyber Forensic Techniques
- IT3545** Disaster Recovery and Business Continuity Management
- IT3547** Malware Analysis

\* Students are to choose enrichment modules from clusters that include general knowledge and life skills, engineering, life sciences, digital media, business, health sciences and design.

<sup>^</sup> Please refer to section on entry requirements for diploma courses for more details.

For detailed module synopses, please refer to the online Prospectus at <http://www.nyp.edu.sg/about-nyp/nyp-overview/media-room/publications/prospectus.html>

# DIPLOMA IN FINANCIAL INFORMATICS



Familiar with financial institutions like American Express, Barclays, Citibank, DBS and UOB? They offer a vast range of products and services that are inextricably linked to IT systems and networks.

To prepare you for a brilliant career in the financial sector, the Diploma in Financial Informatics adopts a well-balanced approach to integrate IT training and financial knowledge. You will learn how the breadth

of IT domains and capabilities are used to implement solutions to enable financial services and analyse financial data. Hands-on projects and case studies further provide you with the experience needed to design and enhance them, especially in focus areas such as accounting and finance, financial products and services, internet and banking technology, business analytics and enterprise solutions.

## WHY THIS DIPLOMA?

- Acquire a good spectrum of IT skills and business domain knowledge relevant to the financial services industry.
- Choice of career paths in IT and/or banking and finance.
- Choice to pursue higher education in IT, banking or finance.

## IT WILL ENABLE YOU TO...

- Define business requirements in financial services and translate them into implementable IT solutions.
- Deploy best practices specific to the trade and enhance them through business intelligence and analytics, business process management, banking technology, enterprise solutions and project work.
- Develop essential life skills in creative and critical thinking, team building, self-directed learning, effective communication and entrepreneurship.

## DURATION

Three academic years on a full-time basis.

## FURTHER EDUCATION

You have opportunities to pursue further studies with advanced standing in relevant degree courses at reputable universities in Singapore, the UK, Australia, the US, Canada, New Zealand and others.

## CAREER PROSPECTS

Graduates of this course will be in high demand and can look forward to rewarding careers in positions such as:

- Cross-disciplinary IT experts
- Techno-strategists
- Financial IT solutions developers
- Financial applications specialists
- IT & financial consultants
- Business & financial analysts

## ENTRY REQUIREMENTS<sup>^</sup>

You must have obtained the following minimum GCE 'O' Level results:

- **English Language (EL1)** Grade 1-7
- **Elementary/Additional Mathematics** Grade 1-6
- **Any two other subjects**, Grade 1-6

<sup>^</sup> Please refer to section on entry requirements for diploma courses for more details.

## COURSE STRUCTURE

### YEAR 1 – SEMESTERS 1 & 2

#### Core Modules

<b>IT1621</b>	Computing Mathematics 1
<b>IT1622</b>	Trends in Fintech & Services
<b>IT1623</b>	Programming Essentials
<b>IT1625</b>	Principles of Accounting
<b>IT1631</b>	Computing Mathematics 2
<b>IT1634</b>	Economics
<b>IT1635</b>	Communication Skills 1
<b>IT1636</b>	Consumer Banking
<b>ITP161</b>	Web Applications Development & Project
<b>ITP162</b>	Object-Oriented Programming & Project

#### General Studies\*

### YEAR 2 – SEMESTERS 1 & 2

#### Core Modules

<b>IT1633</b>	Capital Markets & Financial Instruments
<b>IT2621</b>	Database Management Systems
<b>IT2624</b>	Financial Management
<b>IT2625</b>	Communication Skills 2
<b>IT2626</b>	Law, Governance and Ethics
<b>IT2632</b>	Software Engineering Practices
<b>IT2633</b>	Cyber Security for Financial Services
<b>IT2634</b>	Risk Management
<b>ITP261</b>	Enterprise Applications Development & Project
<b>ITP262</b>	Business Analytics & Project

#### General Studies\*

### YEAR 3 – SEMESTERS 1 & 2

#### Core Modules

<b>IT3621</b>	Emerging Fintech
<b>IT3631</b>	Final Year Project
<b>IT3633</b>	Overseas Internship Programme (12 weeks)
<b>IT3636</b>	Overseas Internship Programme (24 weeks)
<b>IT3638</b>	Internship Programme (24 weeks)
<b>IT3639</b>	Internship Programme (12 weeks)
<b>ITP361</b>	Fintech Innovation Project

#### General Studies\*

#### Prescribed Electives (Choose three)

<b>IT2635</b>	Investment and Financial Derivatives
<b>IT3622</b>	Enterprise Solutions
<b>IT3623</b>	Business Process Management
<b>IT3642</b>	International Finance and Treasury
<b>IT3643</b>	Personal Financial Planning and Insurance
<b>IT3645</b>	Mobile Services and Applications
<b>IT3647</b>	Cloud Computing for Business

## DIPLOMA IN INFOCOMM & SECURITY



We see more and more things getting connected to the Internet, from your phones, smart sensors monitoring the environment to inbuilt computers in cars and buses. This evolution of Internet of Things has opened up new opportunities for multi-skilled IT professionals who can create smart applications that will enhance our lifestyle and help companies find new

and more efficient ways of doing business. This course will equip you to be that IT professional, by exposing you to a wide variety of technologies ranging from Internet of Things, cybersecurity, data analytics to infocomm technologies. Applying design thinking, you will also learn to create innovative solutions that are user-centric.

\* Students are to choose enrichment modules from clusters that include general knowledge and life skills, engineering, life sciences, digital media, business, health sciences and design.

For detailed module synopses, please refer to the online Prospectus at <http://www.nyp.edu.sg/about-nyp/nyp-overview/media-room/publications/prospectus.html>



## WHY THIS DIPLOMA?

- Acquire diverse IT expertise in sensor technologies, cybersecurity, infocomm and application development
- Gain niche capabilities to develop innovative end to end solutions
- Enjoy excellent career prospects as a multi-skilled IT professional

## IT WILL ENABLE YOU TO...

- Design, develop and integrate applications and smart sensors to implement secured IT solutions for businesses.
- Administer and manage secured IT infrastructure systems and services using established IT standards.
- Develop in-depth technical knowledge and skills in one of the following specialisations:
  - Systems & Network Security
  - Network & IT Services
  - Enterprise Software Development
  - IT in Supply Chain Management
- Develop essential life skills in creative and critical thinking, team building, self-directed learning, effective communication and entrepreneurship.

## DURATION

Three academic years on a full-time basis.

## FURTHER EDUCATION

You have opportunities to pursue further studies with advanced standing in relevant degree courses at reputable universities in Singapore, the UK, Australia, the US, Canada, New Zealand and others.

## CAREER PROSPECTS

You can look forward to rewarding careers in positions such as:

- Systems and network security specialists
- Network and IT services specialists
- Software developers
- Logistics and supply chain executives

## ENTRY REQUIREMENTS<sup>^</sup>

You must have obtained the following minimum GCE 'O' Level results:

- **English Language (EL1)** Grade 1-7
- **Elementary/Additional Mathematics** Grade 1-6
- **Any two other subjects** Grade 1-6

## COURSE STRUCTURE

### YEAR 1 – SEMESTERS 1 & 2

#### Core Modules

- IT1751** Computing Mathematics 1
- IT1753** Principles of Computing
- IT1761** Computing Mathematics 2
- IT1762** Data Structures and Algorithms
- IT1768** Database Systems
- IT1769** Law & Ethics of IT
- IT1770** Communication Skills 1
- IT1773** Infocomm Security Fundamentals
- ITP171** IT Fundamentals & Project
- ITP172** Networking Fundamentals & Project

#### General Studies\*

### YEAR 2 – SEMESTERS 1 & 2

#### Core Modules

- IT2755** Software Engineering
- IT2757** Servers and Services Security Management
- IT2758** Operating Systems
- IT2762** Network and Communications
- IT2768** IT Services and Management
- IT2771** Rich Internet Application Development
- IT2774** Network Security
- IT2775** Operations Security
- ITP271** Web Application Development & Project
- ITP272** Sensor Technologies & Project

#### General Studies\*

### YEAR 3 – SEMESTERS 1 & 2

Students must complete all core modules and a minimum of three modules from the prescribed electives.

#### Core Modules

- IT3761** Final Year Project
- IT3763** Overseas Internship Programme (12 weeks)
- IT3766** Overseas Internship Programme (24 weeks)
- IT3768** Internship Programme (24 weeks)
- IT3769** Internship Programme (12 weeks)
- IT3772** Communication Skills 2
- IT3779** Smart Object Technologies

#### General Studies\*

#### Prescribed Electives

(Choose one module from the following)

#### Systems & Network Security

- IT3784** Computer & Network Forensics
- IT3788** Cyber Security Operations & Intelligence
- IT3789** Cyber Security Attack & Defence
- ITP374** Systems & Network Security Project

#### Network & IT Services

- IT3787** Enterprise Systems Administration
- IT3790** Virtualisation and Data Centre Management
- IT3797** Open Systems Administration
- IT3799** IT Services Operations Management
- ITP372** Enterprise Networking & Project

#### Enterprise Software Development

- IT3783** Mobile Applications Development
- IT3795** Database Administration
- IT3800** Open Source Technologies Development
- IT3786** Data Analytics and Visualisation
- ITP371** Enterprise Software Development & Project

#### IT in Supply Chain Management

- IT3792** Logistics and Distribution
- IT3793** Advanced Planning and Optimisation
- IT3794** Operations Management
- ITP373** Global Supply Chain Management & Project

\* Students are to choose enrichment modules from clusters that include general knowledge and life skills, engineering, life sciences, digital media, business, health sciences and design.

For detailed module synopses, please refer to the online Prospectus at <http://www.nyp.edu.sg/about-nyp/nyp-overview/media-room/publications/prospectus.html>

<sup>^</sup> Please refer to section on entry requirements for diploma courses for more details.

# DIPLOMA IN INFORMATION TECHNOLOGY



Realise your ambition to be an IT professional through our flagship diploma course that merges software technology, design and innovation. You will be inspired to create innovative software applications and IT solutions that wow people and captivate industries.

Our broad-based curriculum helps you build a strong foundation in problem-solving skills and programming techniques. This will help

you acquire essential knowledge in software analysis, design, development, testing and management, to turn your ideas into reality. Additionally, you can pursue your interest through one of five specialisations: information security and forensics, business analytics and visualisation, geospatial and mobile innovation, social media and analytics, and digital entertainment.

## WHY THIS DIPLOMA?

- Explore broad-based learning in IT before progressing to focus on a specialisation of your choice.
- Be equipped with strong core IT skills and grow into a highly versatile professional who is in great demand across all industry sectors.
- Our winning curriculum has produced many outstanding graduates who are winners of the Albert Vidal Award at the WorldSkills competition, IT Youth Award winners, Lee Kuan Yew Award winners and an Ngee Ann Kongsi Award winner.
- Past graduates have been awarded prestigious scholarships for further studies and many have excelled in local and overseas universities, obtaining advanced standing and graduating with high honours.

## IT WILL ENABLE YOU TO...

- Be at the forefront of the digital revolution. Be skilled in state-of-the-art technologies and emerging technologies such as diverse smart computing technologies, cyber security, business analytics & visualisation, cloud computing, enterprise software and mobile & web development.
- Be equipped with the essential know-how and follow the industry best practices to innovatively and effectively use IT in industry-grade software development and management, from analysis and design to implementation, testing and quality assurance.
- Gain essential life skills in creative and critical thinking, team building, self-directed learning, effective communication and entrepreneurship.

## DURATION

Three academic years on a full-time basis.

## FURTHER EDUCATION

You have opportunities to pursue further studies with advanced standing in relevant degree courses at reputable universities in Singapore, the UK, Australia, the US, Canada, New Zealand and others.

## CAREER PROSPECTS

IT opens doors to diverse and exciting career opportunities across all industry sectors, including banking, finance, business, marketing, biomedical, health sciences, lifestyle, entertainment, security and networking. You can expect to enjoy a dynamic and rewarding career with industry leaders in positions like:

- Applications and software specialists
- IT consultants
- Enterprise architects
- Project managers
- Technopreneurs

## ENTRY REQUIREMENTS<sup>^</sup>

You must have obtained the following minimum GCE 'O' Level results:

- **English Language (EL1)** Grade 1-7
- **Elementary/Additional Mathematics** Grade 1-6
- **Any two other subjects**, Grade 1-6

<sup>^</sup> Please refer to section on entry requirements for diploma courses for more details.

## COURSE STRUCTURE

### YEAR 1 – SEMESTERS 1 & 2

#### Core Modules

<b>IT1101</b>	Computing Mathematics 1
<b>IT1110</b>	Communication Skills 1
<b>IT1111</b>	Programming Essentials
<b>IT1201</b>	Computing Mathematics 2
<b>IT1213</b>	Data Communications & Networking
<b>IT1214</b>	Digital Media Interaction Design
<b>IT1218</b>	Law & Ethics of IT
<b>IT2106</b>	IP Technology and Networking
<b>ITP111</b>	Web Applications Development & Project
<b>ITP112</b>	Object-Oriented Programming & Project

#### General Studies\*

### YEAR 2 – SEMESTERS 1 & 2

#### Core Modules

<b>IT1204</b>	Data Structures and Algorithms
<b>IT1205</b>	Operating Systems
<b>IT1210</b>	Communication Skills 2
<b>IT2107</b>	Mobile Usability Design
<b>IT2116</b>	Software Engineering
<b>IT2118</b>	InfoSecurity Technology
<b>IT2201</b>	Database Management Systems
<b>ITP211</b>	Object-Oriented Analysis, Design & Project

#### General Studies\*

#### Prescribed Electives

(Choose one module from each of the two specialisations)

#### Programming Language

<b>IT2127</b>	C# Applications Development
<b>IT2128</b>	C++ Applications Development

#### Enterprise Development

<b>ITP212</b>	Java Enterprise Development & Project
<b>ITP213</b>	Enterprise Applications Development & Project

### YEAR 3 – SEMESTERS 1 & 2

#### Core Modules

<b>IT3180</b>	Emerging Trends and Technologies
<b>IT3291</b>	Final Year Project
<b>IT3293</b>	Overseas Internship Programme (12 weeks)
<b>IT3296</b>	Overseas Internship Programme (24 weeks)
<b>IT3298</b>	Internship Programme (24 weeks)
<b>IT3299</b>	Internship Programme (12 weeks)

#### General Studies\*

#### Prescribed Electives

(Choose one specialisation)

#### Information Security & Forensics

<b>IT3111</b>	InfoSecurity Management
<b>IT3112</b>	System and Network Security
<b>IT3118</b>	Digital Forensics
<b>ITP311</b>	Applications Security & Project

## COURSE STRUCTURE (continued)

### Business Analytics & Visualisation

<b>IT3133</b>	Quantitative Methods
<b>IT3134</b>	Business Intelligence & Analytics
<b>IT3135</b>	Digital Marketing & Analytics
<b>ITP315</b>	Business Analytics & Visualisation Project

### Geospatial & Mobile Innovation

<b>IT3160</b>	Concepts of Geospatial Information System
<b>IT3161</b>	Geospatial Visualisation
<b>IT3178</b>	Cloud Computing
<b>ITP312</b>	Smart Device Development & Project

### Social Media & Analytics

<b>IT3125</b>	Psychology & Sociology for Online Media
<b>IT3127</b>	Enterprise Social Media
<b>IT3128</b>	Social Media Marketing & Analytics
<b>ITP313</b>	Social Media Technologies & Project

### Digital Entertainment

<b>IT3125</b>	Psychology & Sociology for Online Media
<b>IT3154</b>	Computer Graphics
<b>IT3158</b>	Visual Art Techniques
<b>ITP314</b>	Games Development & Project

\* Students are to choose enrichment modules from clusters that include general knowledge and life skills, engineering, life sciences, digital media, business, health sciences and design.

For detailed module synopses, please refer to the online Prospectus at <http://www.nyp.edu.sg/about-nyp/nyp-overview/media-room/publications/prospectus.html>