HELP University
university of achievers
DU028(W)

INFORMATION & COMMUNICATION TECHNOLOGY






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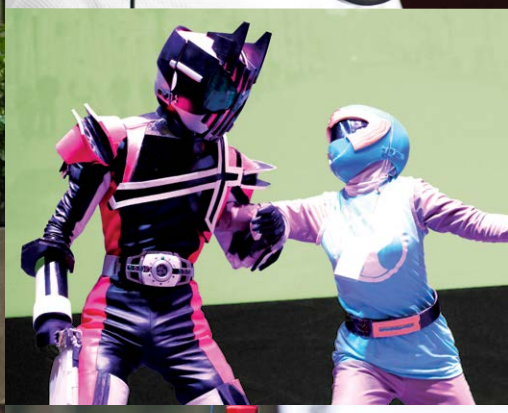



OUR MISSION
IS TO HELP EVERY STUDENT SUCCEED IN LIFE AND TO LIVE A LIFE OF SIGNIFICANCE

To accomplish this, we have developed 4 pillars that will encapsulate your university experience at HELP

ACADEMIC EXCELLENCE

Our dedicated team of educators will ensure you have an engaging and meaningful learning experience

LIFE AND CAREER PREPARATION

Our enhanced curriculum will give you the advantage you need to thrive and succeed in your career and your life

VIBRANT STUDENT LIFE

Our full and exciting campus experience will help you find your joy of life and passion

WELLNESS AND COMMUNITY

Our caring community of students and staff will make you feel welcome, safe and well

HOW AI IS CHANGING THE FUTURE OF WORK

CHALLENGES

By 2025:

85 million jobs to be displaced by AI

50% of all employees will need to reskill in order to remain relevant

OPPORTUNITIES

By 2025:

97 million new jobs will be created by new technologies, spurring innovation and growth across various sectors

*Source for all information on this page: World Economic Forum (WEF) Future of Jobs Report 2023

WHAT "HUMAN SKILLS" ARE NEEDED TO OPTIMIZE AI-HUMAN SYNERGY

- Digital agility
- Social skills
- Emotional Intelligence (EQ)
- Mental agility & critical thinking
- Social intelligence and people skills
- Communication skills
- Analytical thinking
- Resilience and Adaptability

HOW WE ARE PREPARING YOU TO SUCCEED IN AN AI WORLD

1 8 HELP GRADUATE ATTRIBUTES

(page 4)

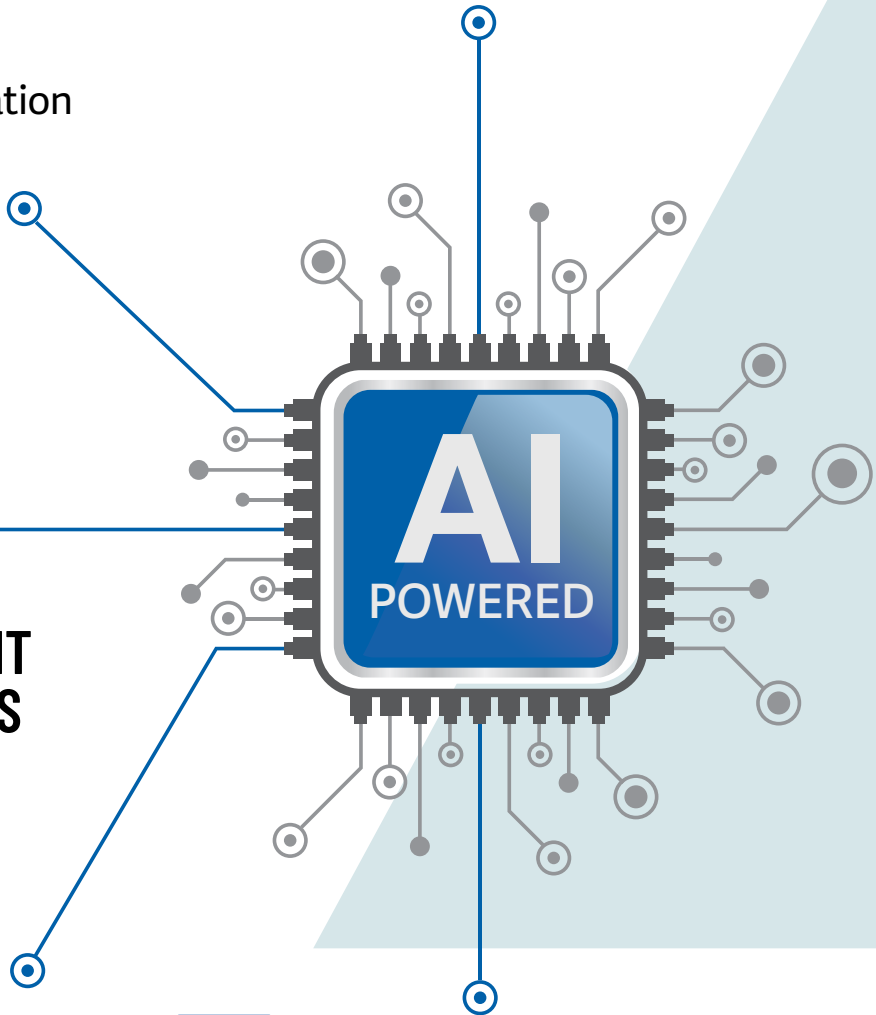
Equipping you with key human skills:

- Digital Agility
- Social Intelligence
- Strategic Communication
- Mental Agility
- Environmental & Global Literacy
- Moral Courage
- Resilience & Wellness
- Clarity of Purpose

2 REAL WORLD PROJECTS

(page 6)

- Develop cutting edge professional skills by completing real work projects designed by real companies



3 INDUSTRY RELEVANT MICRO CREDENTIALS

(page 6)

Strengthen your CV with Micro Credentials from top global companies

4 MENTORING AND TALKS BY INDUSTRY EXPERTS

(page 7)

Learn the latest ideas and skills from global thought leaders

5 INTERNSHIPS WITH TOP ORGANIZATIONS

(page 9)

- Internship programmes with over 1,000 companies

8 HELP GRADUATE ATTRIBUTES

Gayathri Vadivel
Head of Employment Services Division
Social Security Organisation Malaysia (PERKESO)

"In today's dynamic world, filled with much complexity and rapid changes, attributes including digital agility, social intelligence and mental agility paticularly empowers us to thrive in an ever evolving world of work. "

Venon Tian
Chief Operating Officer
ZUS Coffee

"Cultivating these attributes today empowers you to thrive tomorrow, as you become a leader, a problem-solver, and a lifelong learner in an ever-changing world."

1 DIGITAL AGILITY

• Python for beginners	Offered by **Microsoft**
• Introduction to Generative AI • Getting Started with Data • Getting Started with Cybersecurity	Offered by **Google**
• Level up with CHATGPT	Offered by **Jobstreet**

2 SOCIAL INTELLIGENCE

• Brainstorm Ideas in a Group	Offered by **Google**
• Becoming a Changemaker: Introduction to Social Innovation	Offered by **University of Capetown**
• Understanding People / Behaviour Insight	Offered by **HELP University**
• Developing your Emotional Intelligence	Offered by **LinkedIn Learning**

5 ENVIRONMENTAL & GLOBAL LITERACY

• Global Citizenship • Planetary Health	Offered by **World Vision**
• ESG awareness	Offered by **HRDC**

6 MORAL COURAGE

• Community engagement and humanitarian programmes	Offered by **UNICEF**
• Volunteerism	Offered by **World Vision**

***Disclaimer:** Some of these short courses are offered through open-source platforms and are compulsory for all HELP students.

Our curriculum integrates these attributes to prepare students with essential life skills and professional competencies for success in work and life

3 STRATEGIC COMMUNICATION

• Communicate your Ideas through Storytelling and Design	Offered by **Google Garage**
• Effective Presentation Communication	Offered by **HP Life**
• Digital Content Creation	Offered by **HELP University**

4 MENTAL AGILITY

• Effective Learning Skills	Offered by **HELP University**
• Solving Problems with Creative and Critical Thinking	Offered by **IBM**
• Time Management	Offered by **HRDC**

7 RESILIENCE & WELLNESS

• Stress Management • Psychology First Aid	Offered by **HELP University**
• First aid and CPR	Offered by **St. John Ambulance**

8 CLARITY OF PURPOSE

• Personality Testing	Offered by **HELP University**
• Career Readiness • Interviewing and Resume Writing	Offered by **Jobstreet**

Ho Sau Fong
Senior Partnerships Manager
Jobstreet by SEEK

"With these skills and certs, students will be ready to crush industry challenges, stand out, and make an impact in their careers."

Vinesh Naidu
Director - Human Capital
PwC Malaysia

"Staying resilient in pursuit of success comes with tenacity. For young people, the secret lies in balancing digital agility with the timeless strength of human connection and empathy - both for self and others, and these attributes are aligned with the needs."

REAL WORLD EXPERIENCE

Develop cutting edge professional skills by completing real work projects designed by real companies

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS)

WORK-BASED LEARNING (2U1i)

Two years of study at HELP University + One year of placement in industry

- Job placements in top companies such as **Pilot Multimedia, Innergia Labs/Sycarda AI, Dassault Systemes, Beyond Insight, HT Consulting Asia, and Stareq.**
- Supervised by industry professionals, including project managers, software engineers, data scientists, and analytics experts.
- Earn academic credits while gaining industry-specific skills and knowledge.
- Build networks with leading IT professionals in placement companies and their associates.
- Participate in professional meetings and conferences for comprehensive industrial engagement and immersion.

EARN INDUSTRY-RECOGNISED CREDENTIALS

Enhance your CV with industry-recognised certificates and badges from leading global companies.

DIPLOMA IN INFORMATION TECHNOLOGY

CISCO Networking Academy

- Programming Principles
- Computer System Essentials
- Modern Web Development
- Networking and Data Communications I
- Fundamental of Operating Systems
- Capstone Project
- Digital Security Essentials
- Networking and Data Communications II

AWS

- Cloud Computing Fundamentals

IBM SkillsBuild

- Computer System Essentials
- Modern Web Development
- Ethics in Computing
- Introduction to Analysis and Design
- User Centered Design
- Industrial Internship
- Capstone Project

HUAWEI

- Database Concepts and Practices
- Calculus and Linear Algebra
- Computer System Essentials
- Networking and Data Communications I
- Statistics and Probability
- Cloud Computing Fundamentals

BACHELOR OF COMPUTER SCIENCE (HONOURS)

Oracle Academy

- Introduction to Database Systems
- Object Oriented Programming

IBM Skills Build

- Computer Organisation and Architecture
- Cloud Computing
- Web Design Development
- User Experience Design
- T Project Management
- Cybersecurity and Ethics
- Industrial Internship

Google Cloud Career Launchpad Program

- Cloud Computing

Google

- Programming Fundamentals
- Analytics for Decision Making
- Data Mining and Visualisation
- SAS Enterprise Miner
- Data Mining and Visualisation

HUAWEI

- Data Communication and Network
- Cloud Computing

IOT AND AI-BASED SMART GREENHOUSE WORKSHOP

Our IT students designed and built an IoT and AI-powered smart greenhouse as their final-year project, funded by MDEC. This innovative project combines technology with sustainability, aligning with 5IR principles to promote green practices.

Showcased during a campus workshop for school students, the greenhouse demonstrated the role of IoT and AI in sustainable solutions. The event, attended by an MDEC representative, highlighted HELP University's commitment to future-ready careers and addressing global sustainability challenges.

INDUSTRY ENDORSEMENT & SUPPORT

The Faculty of Computing and Digital Technology established an Industry Advisory Board (IAB) to ensure its IT programmes remain relevant and effective while fostering strong industry ties.

Comprised of senior professionals from companies like HT Consulting, IBM, Microsoft, Ernst & Young, MIMOS, ASTRO, PIKOM, MyBiz, FutureLab, SAS and MDEC, the IAB advises on course content, aligning it with industry trends and employment prospects.

The board supports curriculum development, student internships, graduate placements, employment, training on real-world work-based skills and offers guidance on research activities and opportunities.

> "Today, leveraging analytics and AI to understand customers, improve products, or detect fraud is essential for organisations. With the explosion of data from IoT devices– spanning networks, sensors, wearables, and smart meters– managing and monetising this flood of information is critical. HELP University, in partnership with SAS, equips students with a strong foundation in data science, empowering them to make sense of complex data and drive organisational value.

Dr Mark Chia
Founder, Mobius Group
Co-Chair, HELP University IT Industry Advisory Board

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS)

Google Cloud Career Launchpad Program
- Cloud Computing
- Cloud Solutions Development

HUAWEI
- Data Communication and Network
- Cloud Computing
- Internet of Things

IBM Skills Build
- Computer Organisation and Architecture
- Cloud Computing
- Web Design Development
- User Experience Design
- Cybersecurity and Ethics
- Industrial Internship

BACHELOR OF INFORMATION TECHNOLOGY (DATA ANALYTICS) (HONOURS)

SAS
- Machine Learning and Artificial Intelligence
- Data Mining and Visualisation

Google Cloud Career Launchpad Program
- Cloud Computing
- Cloud Computing Programming Fundamentals
- Analytics for Decision making

HUAWEI
- Data Communication and Network
- Cloud Computing

IBM Skills Build
- Computer Organisation and Architecture
- Web Design Development
- User Experience Design
- Cybersecurity and Ethics
- Industrial Internship

MASTER OF DATA SCIENCE

IBM Data Science Professional Certificate
- Programming for Data Science
- Data Management
- Advanced Machine Learning

Google Cloud
- Data Management
- Advanced Machine Learning

Microsoft
- Advanced Machine Learning

TensorFlow Developer
- Advanced Machine Learning

SAS
- Programming for Data Science
- Advanced Machine Learning

INFORMATION & COMMUNICATION TECHNOLOGY (ICT)

The Convergence of Information Technology, Telecommunications, and Data Networking into a Unified Technology.

Information & Communication Technology (ICT) encompasses a diverse set of tools and resources used to transmit, store, create, share, or exchange information.

It spans a wide range of modern roles, from data entry and internet optimisation to designing systems that guide rockets.

Graduates with the right skills and experience are highly sought after across various industries. Careers in ICT are in high demand, driven by the growing need for data analytics, cybersecurity, IoT, smart systems, and automation.

The global outlook for jobs in this field remains overwhelmingly positive, ensuring long-term opportunities for professionals.

EXPLORE INTERNSHIPS AND START YOUR CAREER WITH TOP ORGANISATIONS

Our Information and Communication Technology programmes offers you the unique opportunity to secure internships and full-time employment with over 300 business corporations and social work organisations. These are some of the organisations that have employed HELP IT graduates.

Alliance Bank Deloitte Consulting (SEA)
Accenture Citibank Maxis Communications
IBM MIMOS ASTRO Sapura Holdings
IOI Group Shell HP Enfrasys Consulting
Silverlake Digital Economy Dassault Systèmes
White Label YTL Construction Cyber Village
Nimbus Cloud SKRINE Strateq Systems
Pilot Multimedia (M) DataMicron Systems
Shopee Malaysia Beyondsoft (Malaysia)
Mesiniaga SYCARDA - Innergia Labs MACO

"I have found IT to be incredibly fast-paced and there is always room for innovation and creativity.

The courses that I studied in my BIT (Honours) degree and the interactions that I had with my lecturers have most certainly equipped me with the necessary skills for my current employment at Ernst & Young (Singapore)."

Ooi Her Wuen

Bachelor of Information Technology (Honours), First Class Honours, HELP University

Tan Sri Datuk Paduka Dr Hajjah Saleha Outstanding Achievement Award President's Award

Senior Associate, Advisory Services, Ernst & Young (Singapore)

Premier Digital Tech Institution

DISCOVER OUR IN-DEMAND DEGREE PROGRAMMES FOR HIGH SCHOOL GRADUATES

Choose from industry-focused programmes that offer hands-on learning, essential skills, and a strong foundation for career success

Students have a choice to pursue the following specialisations at HELP:

- Bachelor of Information Technology (Honours)
- Bachelor of Information Technology (Data Analytics) (Honours)
- Bachelor of Computer Science (Honours)

PROGRAMME DETAILS

- 3-year Honours programme
- 30-32 courses to be completed in a minimum of 3 years
- 14 weeks for a long semester and 7 weeks for a short semester
- The programme offer a wide selection of elective courses and specialised tracks that allow students to develop their knowledge and expertise in their areas of interest. (Note: Students are also allowed to take Free Electives from across any other programmes and faculties).

SPECIALISED TRACKS

Customised tracks have been curated for students to pursue hot topic areas of interest. The current tracks for this programme are as follows (Note: new tracks are introduced from time to time based on the latest technological developments, and students also do have the flexibility to mix & match electives based on their aspirations):

Bachelor of Information Technology (Honours)

- Fintech
- Internet of Things (IoT)
- Mobile Apps Development

Bachelor of Information Technology (Data Analytics) (Honours)

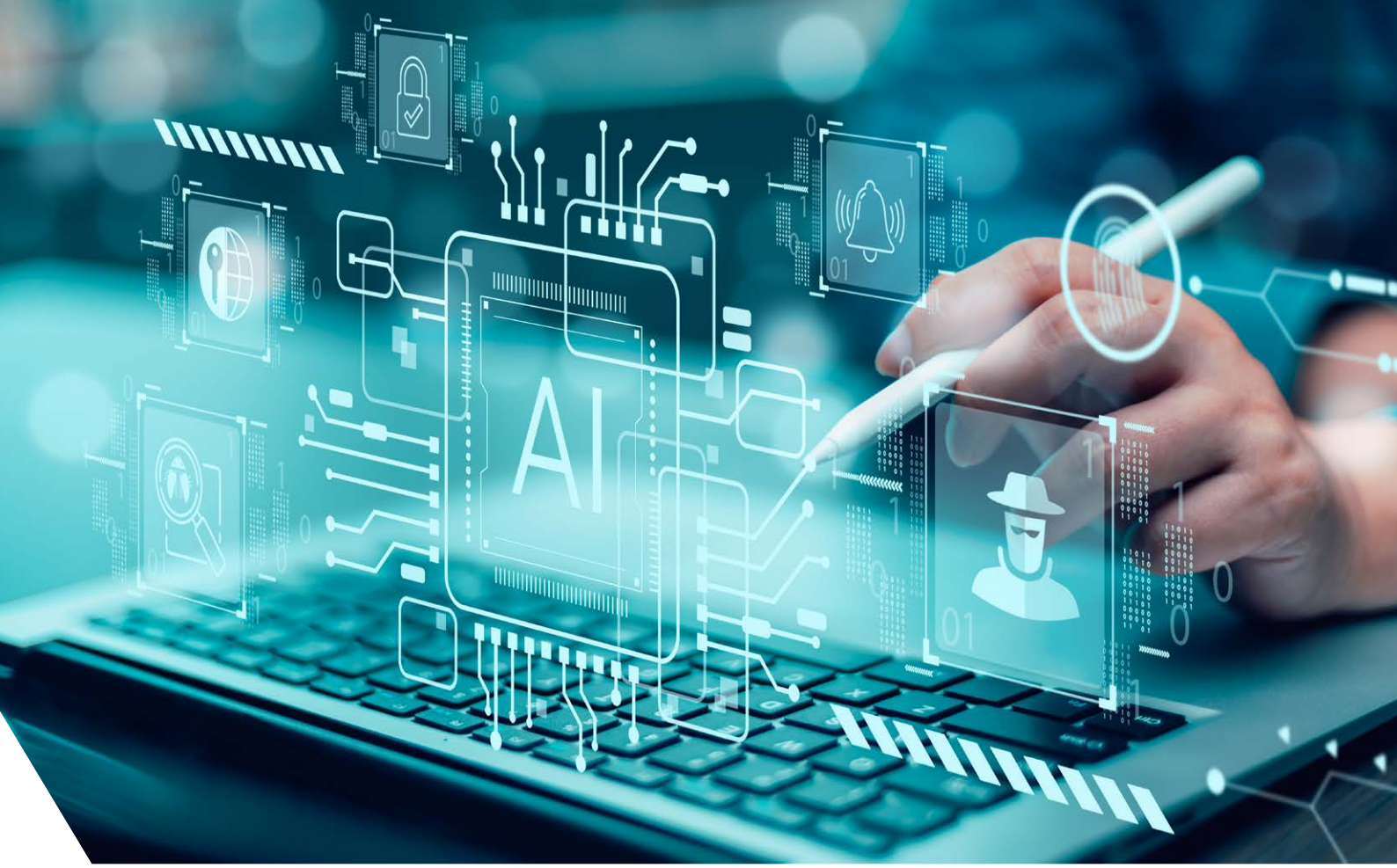
- Business Intelligence
- Quantitative Analytics

Bachelor of Computer Science (Honours)

- Artificial Intelligence (AI)
- Blockchain
- Cybersecurity
- Data Science
- Quantum Computing

THE RECOMMENDED ELECTIVES (FIELD-SPECIFIC AND FREE/OPEN) OFFERED BY THE FACULTY INCLUDE:

- Advanced Database Systems
- Network Security
- Advanced Web Development
- Analytics for Decision Making
- Applied Mathematical Studies
- Big Data Technologies
- Blockchain Applications and Smart Contracts
- Blockchain Development
- Blockchain Technology Concepts
- Cloud Solutions Development
- Cybercrime and Digital Forensics
- Cyberdefence and Ethical Hacking
- Data Mining and Visualisation
- Deep Learning for Computer Vision
- Enterprise Data Infrastructure
- Fundamentals of AI
- Internet of Things
- Introduction to Mobile Apps
- Introduction to Quantum Computing
- Machine Learning and AI
- Mobile Applications Development
- Natural Language Processing
- Principles of Machine Learning
- Professional Communications for Business
- Startup Ideation
- Technopreneurship and Innovation



DIPLOMA IN INFORMATION TECHNOLOGY

(R4/0611/4/0071) (09/30) (A6528)

In-Depth 2-Year IT Diploma Programme Covering Core Technical Skills, Hands-On Projects, and Professional Development

INTAKES: January, May, August

PROGRAMME DETAILS

- 2-year programme
- 14 weeks for full semester; 7 weeks for half a semester
- Students are required to complete 19 Academic courses and 5 HEP Compulsory Courses

COURSES

YEAR 1

- Introduction to Analysis and Design
- Computer System Essentials
- Programming Principles
- Computing Mathematics
- Calculus and Linear Algebra
- Modern Web Development
- Object Oriented Programming Fundamentals
- Networking and Data Communications I
- Database Concepts & Practices
- Ethics in Computing

YEAR 2

- Fundamental of Operating Systems
- Capstone Project
- User Centered Design
- Internship
- Mobile App Development
- Statistics and Probability
- Digital Security Essentials
- Cloud Computing Fundamentals
- Networking and Data Communications II

5 HEP COMPULSORY COURSES (INCLUDING MPU SUBJECTS)

MPU1 (choose 1) (Malaysian students)

- Penghayatan Etika dan Peradaban
- Falsafah dan Isu Semasa

OR

MPU1 (International students)

- Bahasa Melayu Komunikasi 1 / Malay Language for Communication

MPU2 / MPU3 (choose 1)

- Bahasa Kebangsaan A (for Malaysian students without a credit in SPM Bahasa Melayu)
- Kursus Integriti dan Anti Rasuah (KIAR)

MPU4 (choose 1)

- Co-curriculum – Sports 1
- Co-curriculum – Community Service 1

General Elective

- Communication 1

HELP Graduate Attribute Course

- Discovering Oneself

BACHELOR OF COMPUTER SCIENCE (HONOURS)

(N/0613/6/0006) (08/27) (MQA/PA15760)

INTAKES: January, May, August

HELP University's Bachelor of Computer Science (Honours) programme immerses you in cutting-edge technology and innovation, with a focus on Cybersecurity, Blockchain, and Artificial Intelligence, empowering you to become a leader in computing.

SPECIALISED TRACKS

ARTIFICIAL INTELLIGENCE (AI)

AI enables computers or robots to perform tasks associated with human intelligence, like reasoning, learning, and generalising. Rapidly advancing, AI is now integral to modern software for creating adaptive, reliable, and creative systems (e.g., Generative AI). Key courses include Fundamentals of AI, Machine Learning, Deep Learning, and Natural Language Processing.

CYBERSECURITY

Cybersecurity involves measures to protect electronic data from unauthorised access and cybercrime, which causes trillions in global losses annually. Demand for cybersecurity expertise is high. Courses include Cybercrime and Digital Forensics, Advanced Networking, Cyberdefense and Ethical Hacking, and Computer Ethics.

BLOCKCHAIN

Blockchain is a secure, decentralised digital ledger shared across a network of computers, providing an unalterable record of transactions. It is increasingly applied in areas such as cryptocurrencies, decentralised finance (DeFi), non-fungible tokens (NFTs), and smart contracts. Course covered includes Blockchain Technology Concepts, Blockchain Applications and Smart Contracts, and Blockchain Development.

DATA ANALYTICS

The collection, transformation, and organization of data to draw conclusions, make predictions, and inform decision-making. Insights gained are crucial for enhancing business performance and solving problems. Courses include Analytics for Decision Making, Statistics and Visualisation, Statistics for Data Science, and Data Mining and Machine Learning.

QUANTUM COMPUTING

Explores the fundamentals and highlights the potential future direction leveraging on the emerging power of quantum computing.

COURSES

YEAR 1

- Core Computing
- Computer Architecture and Organisation
- Introduction to Database Systems
- Data Communications and Networking
- Introduction to Operating Systems
- Programming Fundamentals
- Discipline Core
- Fundamentals of Artificial Intelligence
- Discrete Mathematics
- Web Design and Development
- Object Oriented Programming

Choose 1 Field Elective

YEAR 2

- Core Computing
- System Architecture and Design
- Discipline Core
- User Experience Design
- Software Engineering Principles
- Data Structures and Algorithms
- Computer Systems Engineering

Choose 2 Field Electives and 2 Free Electives

YEAR 3

- Discipline Core
- Concurrent Programming
- Cybersecurity and Ethics
- Project
- Final Year Project I
- Final Year Project II
- Industrial Internship

Choose 2 Field Electives and 1 Free Elective

MPU SUBJECTS

Two **MPU1***

- Penghayatan Etika dan Peradaban
- Falsafah dan Isu Semasa
- Bahasa Melayu Komunikasi 2

MPU2 / MPU3 (choose 1)

- Bahasa Kebangsaan A (for Malaysian students without a credit in SPM Bahasa Melayu)
- A* Gen Careers in Malaysia and Beyond
- Integrity and Anti-Corruption

To choose at least one **MPU4** subject

- Co-curriculum – Sports 2
- Co-curriculum – Event Management 2

HELP Graduate Attribute Course

- Discovering Oneself
- Engaging the World

"HELP University has fueled my passion for learning, teaching versatile programming paradigms applicable across languages. Courses in UML modeling, game development, and the final-year project have prepared me to plan and manage new projects.

The lecturers offer valuable real-world insights, illustrating theories with practical examples."

Khalid Mohammad Saleem

Bachelor of Computer Science (Honours)
First Class Honours

Software Engineer, MIMOS

GOOGLE SELECTS HELP IT GRADUATES FOR START-UP MENTORING

Jarvis Store, founded by three enterprising HELP Bachelor of Information Technology (Honours) graduates, Frianto Moerdowo, Gusindra Divanatha and Agus Yusida, was selected to attend the Google Launchpad Accelerator Program at Googleplex, Silicon Valley.

Jarvis Store, rated one of the best start-up companies in Indonesia, was one of 24 smart companies from around the world selected by Google to attend the program.

"The Bachelor of IT from HELP University gave me a strong foundation to enter the IT industry. I was fortunate to have dedicated lecturers who inspired, taught, and encouraged me to be confident and bold in my entrepreneurial pursuits."

Frianto, CEO of Jarvis Store

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS)

(R4/0611/6/0094) (03/30) (A5954)

INTAKES: January, May, August

The Bachelor of IT allows you to become a world class information technology professional with versatile skills to develop the most innovative and cutting-edge web applications, immersive mobile apps and inventive Internet of Things devices.

SPECIALISED TRACKS

FINTECH

This track provides exposure to the new technologies employed to improve and automate the delivery and use of financial services; helping companies, business owners and consumers better manage their financial operations, processes, and lives.

IoT

This track covers the Internet of Things, which allows various types of devices and applications to communicate seamlessly to provide vital information, services and lifestyle opportunities that are used in many applications such as smart homes, remote healthcare, etc.

MOBILE APPS DEVELOPMENT

This track develops the knowledge, skills and expertise to produce effective and sustainable applications via mobile and smart devices, which has become an increasingly intrinsic component of most aspects of modern living.

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS) (2U1i – Work-Based Learning)

The Bachelor of IT also provides a Work-Based Learning (WBL) mode that follows the 2U1i formula, where a student spends 2 years at the university and 1 year in the industry.

For more information, please see page 8

COURSES

YEAR 1

- Core Computing
- Computer Systems and Organisation
- Introduction to Database Systems
- Data Communications and Networking
- Introduction to Operating Systems
- Programming Fundamentals
- Discipline Core
- Web Design and Development
- Object Oriented Programming
- Discrete Mathematics

Choose 1 Free Elective

YEAR 2

- Core Computing
- System Architecture and Design
- Discipline Core
- User Experience Design
- Advanced Database Systems
- Software Engineering Principles
- Cloud Computing

Choose 3 Field Electives and 1 Free Elective

YEAR 3

- Discipline Core
- IT Project Management
- Cybersecurity and Ethics
- Project
- Final Year Project I
- Final Year Project II
- Industrial Internship

Choose 2 Field Electives and 1 Free Elective

MPU SUBJECTS

Two **MPU1***

- Penghayatan Etika dan Peradaban
- Falsafah dan Isu Semasa
- Bahasa Melayu Komunikasi 2

MPU2 / MPU3 (choose 1)

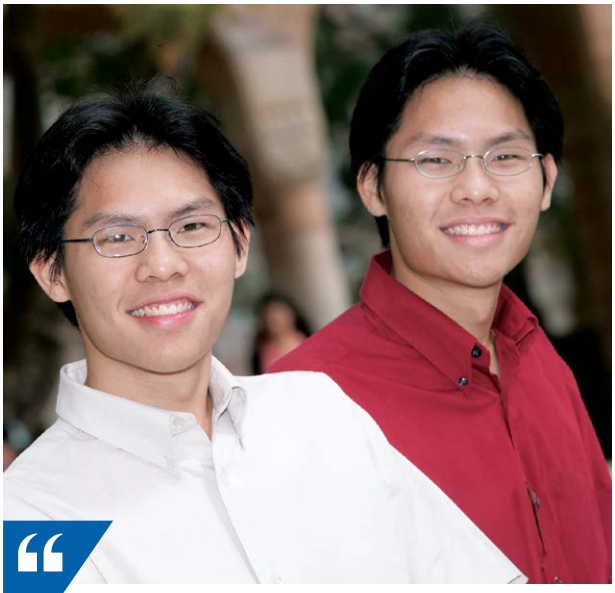
- Bahasa Kebangsaan A (for Malaysian students without a credit in SPM Bahasa Melayu)
- A* Gen Careers in Malaysia and Beyond
- Integrity and Anti-Corruption

To choose at least one **MPU4** subject

- Co-curriculum – Sports 2
- Co-curriculum – Event Management 2

HELP Graduate Attribute Course

- Discovering Oneself
- Engaging the World



"The Bachelor of Information Technology (Honours) credit transfer programme between HELP and The University of Queensland (UQ) is an excellent programme that encompasses a good mix of theory and practical learning experiences. Having dedicated staff that consistently win teaching awards and with links to industry partners, this programme is recognised globally and prepares you well for the work force."

Twins John Ngui Kin Choong and Arthur Ngui Kin Seng

Both graduated with a HELP Bachelor of Information Technology (Honours) First Class Honours; they are currently working in Queensland.

"Studying in HELP has not only given me the tertiary knowledge, but also critical skills like project management, discipline and focus to achieve a desired goal. It has given me an experience of internationalisation and globalisation, through my interactions with foreign students and lecturers, as well as opened up a world view for me. This is critical for my entrepreneurship ventures."

Vincent Cheng Kim Loong

Bachelor of Information Technology (Honours)
CEO of Jevine Solutions
Founder of Malaysian Business Network

BACHELOR OF INFORMATION TECHNOLOGY (DATA ANALYTICS) (HONOURS)

(R2/481/6/0677) (08/25) (A6239)

INTAKES: January, May, August

This programme is a specialised programme designed to develop well-rounded professionals with the essential competencies for success in the evolving field of data analytics. It emphasises proficiency in analytical techniques and tools while fostering critical thinking, effective communication, and problem-solving skills for complex data challenges.

SPECIALISED TRACKS

Business Intelligence

This track emphasises translating complex findings into understandable language, making it ideal for those who want to bridge the gap between data and business.

Quantitative Analytics

This track emphasises predictive modelling and optimisation techniques to forecast future trends and make data driven decisions.

COURSES

YEAR 1

- Core Computing
- Computer Architecture and Organisation
- Introduction to Database Systems
- Data Communications and Networking
- Introduction to Operating Systems
- Programming Fundamentals
- Discipline Core
- Web Design and Development
- Discrete Mathematics
- Object Oriented Programming
- Specialisation & Project
- Analytics for Decision Making

Choose 1 Free Elective

YEAR 2

- Core Computing
- System Architecture and Design
- Discipline Core
- User Experience Design
- Advanced Database Systems
- Advanced Web Development
- Specialisation & Project
- Data Mining and Data Visualisation
- Enterprise Data Infrastructure

Choose 1 Free Elective

YEAR 3

- Discipline Core
- IT Project Management
- Cybersecurity and Ethics
- Startup Ideation
- Specialisation & Project
- Machine Learning and AI
- Big Data Technologies
- Final Year Project I
- Final Year Project II
- Industrial Internship

Choose 1 Free Elective

MPU SUBJECTS

Two **MPU1***

- Penghayatan Etika dan Peradaban
- Falsafah dan Isu Semasa
- Bahasa Melayu Komunikasi 2

MPU2 / MPU3 (choose 1)

- Bahasa Kebangsaan A (for Malaysian students without a credit in SPM Bahasa Melayu)
- A* Gen Careers in Malaysia and Beyond
- Integrity and Anti-Corruption

To choose at least one **MPU4** subject

- Co-curriculum – Sports 2
- Co-curriculum – Event Management 2

HELP Graduate Attribute Course

- Discovering Oneself
- Engaging the World

MASTER OF DATA SCIENCE

(R/0613/7/0045) (07/30) (MQA/FA13820)

INTAKES: January, April, June, October

This programme aims to produce graduates who meet the increasing demand for data science professionals skilled in decision-making based on comprehensive data. It prepares graduates to apply analytics techniques for knowledge discovery, helping researchers and decision-makers achieve organisational goals.

OBJECTIVES

The objectives of the Master of Data Science are to produce graduates who are able to:

- Apply quantitative modelling and data analysis techniques to the solution of real world business problems, communicate findings, and effectively present results using data visualisation techniques.
- Recognise and analyse ethical issues in business related to intellectual property, data security, integrity, and privacy.
- Demonstrate knowledge of statistical data analysis techniques utilised in decision-making.
- Use data mining software to solve real-world problems.
- Employ cutting edge tools and technologies to analyse Big Data.
- Apply algorithms to build machine intelligence.
- Demonstrate use of team work, leadership skills and decision making.

PROGRAMME DURATION

6 academic modules to be completed in a minimum period of 1 year.

CAREER PROSPECTS

- Machine Learning Scientist
- Decision Analytics Manager
- Data Analytics Manager
- Data Scientist
- Data Innovation Manager
- Business Analyst Manager
- Business Intelligence Developer
- Data Architect
- Data Analyst
- Statistician
- Data Mining or Big Data Engineer

MODULES

PROGRAMMING FOR DATA SCIENCE

Equips students with fundamentals of programming using a high-level programming language to solve problems focusing on data.

STATISTICS FOR DATA SCIENCE

Provides an introduction to basic statistical concepts and methods which include: simple and multiple linear regression, classification, decisions trees, support vector machines, and unsupervised learning.

APPLIED MACHINE LEARNING

Provides a foundation for principles of machine learning by exploring major approaches and algorithms, feature engineering and model evaluation methods.

DATA MANAGEMENT

Introduces techniques related to modelling, extraction, cleansing, profiling, integration and access of data.

RESEARCH METHODS

Instructs students in the various processes related to conducting research, including writing the research proposal, research design, collecting, processing and analysing data, and writing the research report.

DISSERTATION

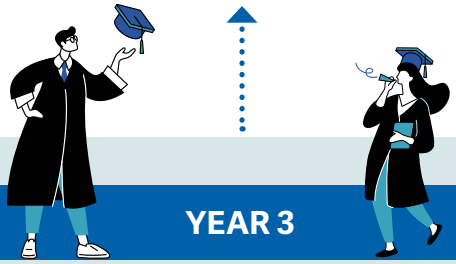
A research project based on industry requirements. The students may work on the project on-site, or they may work on the project at the university. The students will gain real-world exposure to modern data science challenges. Projects will be drawn from real-world problems and may be conducted with government, industry or academic partners.

UNLOCKING A WORLD OF

Explore pathways from secondary education to university and beyond. Earn your degree, pursue postgraduate opportunities, and step confidently into a successful career – your journey starts here.

HELP POSTGRADUATE PROGRAMMES

- Master of Data Science
- Master of Business Administration (MBA)
- Master of Business Administration (MBA) - Online
- Master of Entrepreneurship
- Master of Project Management
- Master of Philosophy (MPhil)
- Master of Science in Economic Crime Management
- Doctor of Business Administration (DBA)
- Doctor of Philosophy (Business, Management and Entrepreneurship)



YEAR 3

YEAR 2

YEAR 1

HELP Bachelor of Information Technology (Honours) or **HELP Bachelor of Information Technology (Data Analytics) (Honours)** or **HELP Bachelor of Computer Science (Honours)**

STPM / UEC / A-LEVELS or equivalent

HELP Foundation in Arts/Science

HELP Diploma in Information Technology

SPM / IGCSE / Certificate

YOUR JOURNEY STARTS HERE

OPPORTUNITIES

Credit transfer to universities in Australia, United Kingdom and China

AUSTRALIA

The University of Queensland

- 2 years at HELP University (Diploma in Information Technology) + 1.5 years at The University of Queensland (Bachelor of Information Technology)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at The University of Queensland (Bachelor of Computer Science)
- 2 years at HELP University (Bachelor of Information Technology (Honours)) + 1 year at The University of Queensland University (Bachelor of Information Technology)
- 2 years at HELP University (Bachelor of Information Technology (Honours)) + 1.5 years at The University of Queensland University (Bachelor of Computer Science)
- 2 years at HELP University (Bachelor of Information Technology (Honours)) + 2 years at The University of Queensland University (Bachelor of Information Technology (Software Design)
- 1 year at HELP University (Bachelor of Computer Science (Honours)) + 2 years at The University of Queensland University (Bachelor of Information Technology)
- 2 year at HELP University (Bachelor of Computer Science (Honours)) + 1 year at The University of Queensland University (Bachelor of Information Technology)
- 1 year at HELP University (Bachelor of Computer Science (Honours)) + 2 years at The University of Queensland University (Bachelor of Computer Science)
- 2 year at HELP University (Bachelor of Computer Science (Honours)) + 1 year at The University of Queensland University (Bachelor of Computer Science)

Macquarie University

- 2 years at HELP University (Diploma in Information Technology) + 2 years at Macquarie University (Bachelor of Information Technology (Cybersecurity)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at Macquarie University (Bachelor of Information Technology (Data Science)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at Macquarie University (Bachelor of Information Technology (Information Systems & Data Analytics)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at Macquarie University (Bachelor of Information Technology (Software Technology)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at Macquarie University (Bachelor of Information Technology (Web & Mobile App Development)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at Macquarie University (Bachelor of Cyber Security)
- 1.5 years at HELP University (Bachelor of Information Technology (Honours)) + 1.5 years at Macquarie University (Bachelor of Information Technology (Cybersecurity) / (Data Science) / (Information Systems & Business Analysis) / (Software Technology) / (Web & Mobile App Development))

Western Sydney University

- 1 year at HELP University (Bachelor of Information Technology (Honours)) + 2 years at Western Sydney University (Bachelor of Data Analytics)

The University of Adelaide

- 2 years at HELP University (Diploma in Information Technology) + 2 years at The University of Adelaide (Bachelor of Information Technology) / (Bachelor of Computer Science)
- 1 year at HELP University (Bachelor of Information Technology (Honours)) + 2 years at Adelaide University (Bachelor of Information Technology)
- 1 year at HELP University (Bachelor of Information Technology (Honours)) + 2.5 years at Adelaide University (Bachelor of Computer Science)

UNITED KINGDOM

University of Essex

- 2 years at HELP University (Diploma in Information Technology) + 1 year at University of Essex (Bachelor Sc Computer Science) / (BEng Computer Networks) / (BEng Computers with Electronics) / (BEng Computers Systems Engineering)
- 1 year at HELP University (Bachelor of Information Technology (Honours)) + 2 years at University Essex (BSc Computer Games) / (BSc Computer Science) / (BSc Computer Science Networks) / (BEng Computer with Electronics) / (BEng Computer Systems Engineering)

University of the West of England

- 2 years at HELP University (Diploma in Information Technology) + 2 years at University of the West of England (BSc (Honours) Software Engineering for Business / BSc (Honours) Business Computing / BSc (Honours) IT Management for Business)

Plymouth University

- 2 years at HELP University (Diploma in Information Technology) + 2 years at Plymouth University (BSc (Hons) Computer Science/second year) / (BSc (Hons) Computer Science (AI)/second year) / (BSc (Hons) Computer Science (Cybersecurity)/second year) / (BSc (Hons) Computer Science (Games Development)/second year) / BSc (Hons) Computer Science (Software Engineering)/second year)
- 1 year at HELP University (Bachelor of Information Technology (Honours)) + 2 years at Plymouth University (BSc (Hons) Computer Science/second year) / (BSc (Hons) Computer Science (AI)/ second year) / (BSc (Hons) Computer Science (Cybersecurity)/second year) / (BSc (Hons) Computer Science (Games Development)/second year) / BSc (Hons) Computer Science (Software Engineering)/second year)
- 2 years at HELP University (Bachelor of Information Technology (Honours)) + 1 year at Plymouth University (BSc (Hons) Computer Science/final year) / (BSc (Hons) Computer Science (Software Engineering)/final year)
- 1 year at HELP University (Bachelor of Computer Science (Honours)) + 2 years at Plymouth University (BSc (Hons) Computer Science/second year) / (BSc (Hons) Computer Science (AI)/second year) / (BSc (Hons) Computer Science (Cybersecurity)/second year) / (BSc (Hons) Computer Science (Games Development)/second year) / (BSc (Hons) Computer Science (Software Engineering)/second year)
- 2 years at HELP University (Bachelor of Computer Science (Honours)) + 1 year at Plymouth University (BSc (Hons) Computer Science/final year) / (BSc (Hons) Computer Science (AI)/final year) / (BSc (Hons) Computer Science (Cybersecurity)/final year)

Swansea University

- 1 year at HELP University (Bachelor of Information Technology (Honours) + 2 years at Swansea University (BSc Computer Science)
- 1 year at HELP University (Bachelor of Information Technology (Data Analytics)) (Honours) + 2 years at Swansea University (BSc Computer Science)

CHINA

Beijing JiaoTong University

- 2 years at HELP University (Diploma in Information Technology) + 2 years at Beijing Jiaotong University (Bachelor of Software Engineering)
- 1.5 years at HELP University (Bachelor of Information Technology (Honours)) + 2 years at Beijing Jiaotong University (Bachelor of Software Engineering)
- 2 years at HELP University (Bachelor of Information Technology (Honours)) + 1 year at Beijing Jiaotong University (Bachelor of Engineering in Computer Science & Technology)

THE UNIVERSITY OF QUEENSLAND CREDIT TRANSFER PROGRAMME

The Bachelor of Information Technology (Honours) and Bachelor of Computer Science (Honours) are provided as part of an exclusive credit transfer arrangement with The University of Queensland. The degrees include a central core comprising compulsory study in computer science and several affiliated areas.

- 2 years at HELP University (Diploma in Information Technology) + 1.5 years at The University of Queensland (Bachelor of Information Technology)
- 2 years at HELP University (Diploma in Information Technology) + 2 years at The University of Queensland (Bachelor of Computer Science)
- 2 years at HELP University (Bachelor of Information Technology (Honours) + 1 year at The University of Queensland University (Bachelor of Information Technology)
- 2 years at HELP University (Bachelor of Information Technology (Honours) + 1.5 years at The University of Queensland University (Bachelor of Computer Science)
- 2 years at HELP University (Bachelor of Information Technology (Honours) + 2 years at The University of Queensland University (Bachelor of Information Technology (Software Design)
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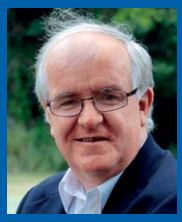
- 1 year at HELP University (Bachelor of Computer Science (Honours)) + 2 years at The University of Queensland University (Bachelor of Computer Science)
- 2 year at HELP University (Bachelor of Computer Science (Honours)) + 1 year at The University of Queensland University (Bachelor of Computer Science)

> “As an external examiner for HELP University for 18 years, I’ve consistently been impressed by the dedication of the IT Department staff.
>
> Their standards align with those of The University of Queensland, and HELP students transferring to UQ are top-notch scholars.



Paul Bailes
BSc (Honours), PhD FACS FIEAust , Emeritus Professor of Computer Science
The University of Queensland

BEIJING JIAOTONG UNIVERSITY CREDIT TRANSFER PROGRAMME

- 2 years at HELP University (Diploma in Information Technology) + 2 years at Beijing Jiaotong University (Bachelor of Engineering (Honours) Computer Science and Technology)

Beijing Jiaotong University (BJTU) is a national research university that has been around for 117 years. It is also one of the “211 Project” universities under the direct administration of the Ministry of Education (MoE), China. Currently with 2,842 employees, 14,000 undergraduate students, 5,900 post-graduate students, 2,200 doctoral candidates, 5,000 in-service professional degree graduate students, 724 international students and more than 100,000 graduates, BJTU puts great emphasis on international cooperation in education.

Beijing Jiaotong University (BJTU) is located in Beijing’s Haidian District, which is known as, “China’s home of higher education”. To the north of the university is Zhong-guancun (Silicon Valley). This university covers an area of 73 acres and is composed of east and west campuses. These campuses have amazing facilities and a beautiful environment.

A RM25 million Business Analytics and Technology Innovation Centre (BATIC) for training in online live stock-trading with data analytics

HELP University Subang Bestari Campus

EXPLORE OUR DIVERSE AND ACCOMPLISHED ACADEMIC TEAM

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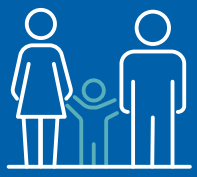

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