Computing & IT

Future Education @ MCKL

The World Economic Forum has identified **7 Emerging Profession Clusters** and **5 Future-Oriented Skills Clusters** in the Jobs of Tomorrow, January 2020 report. MCKL, as The Institution of Excellence for Life, is committed to develop future-ready students by delivering quality, relevant and in-demand curriculum.
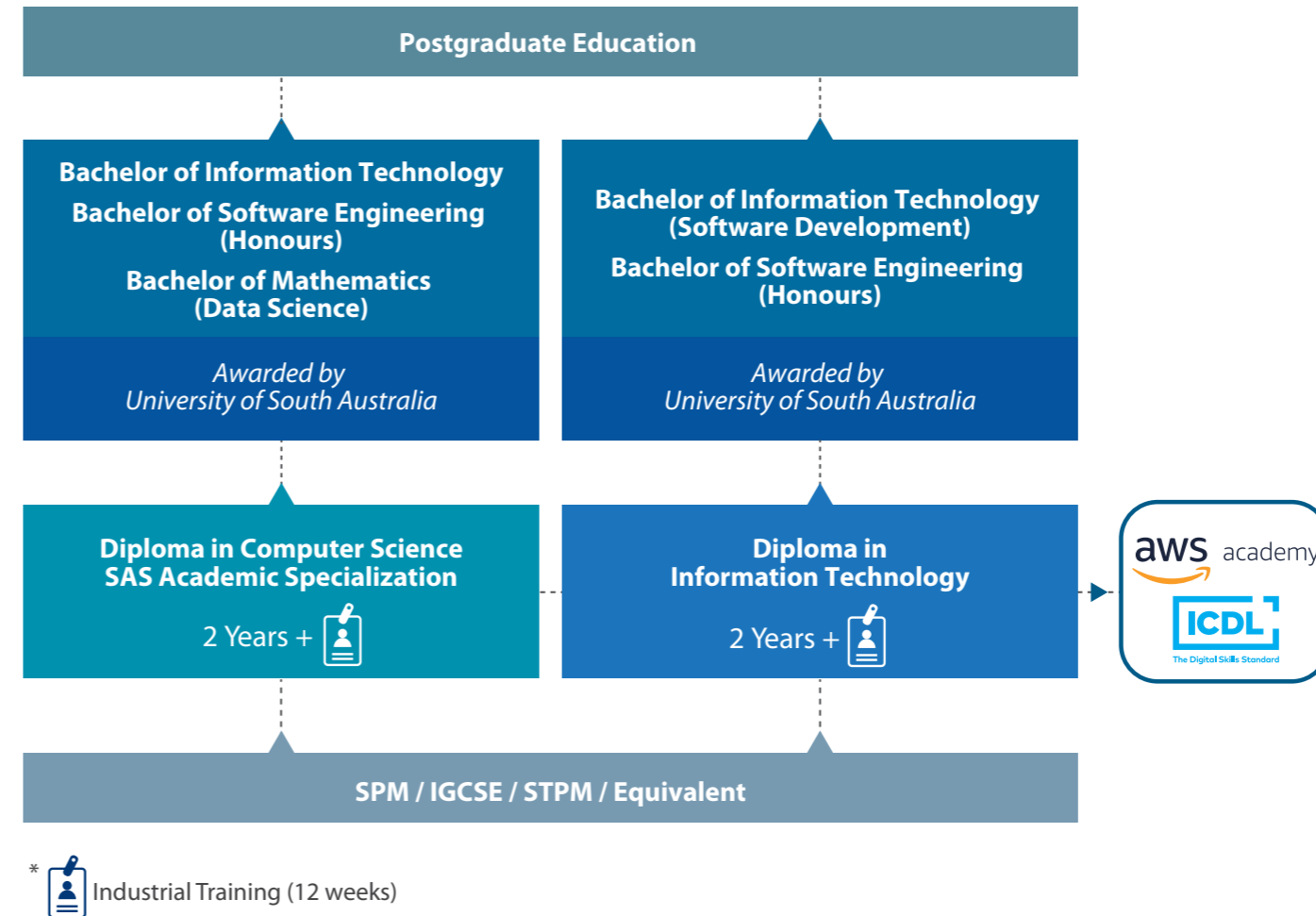
7 Emerging Profession Clusters

- People and Culture
- Green Economy
- Care Economy
- Data and AI
- Engineering and Cloud Computing
- Sales, Marketing and Contents
- Product Development

5 Future-Oriented Skills Clusters

- Business Skills
- Specialised Industry Skills
- General and Soft Skills
- Tech Baseline Skills
- Tech Disruptive Skills

EDUCATION PATHWAY

Postgraduate Education

Bachelor of Information Technology Bachelor of Software Engineering (Honours) Bachelor of Mathematics (Data Science) *Awarded by University of South Australia*	Bachelor of Information Technology (Software Development) Bachelor of Software Engineering (Honours) *Awarded by University of South Australia*
Diploma in Computer Science SAS Academic Specialization 2 Years + 📇	Diploma in Information Technology 2 Years + 📇

aws academy · ICDL The Digital Skills Standard

SPM / IGCSE / STPM / Equivalent

* 📇 Industrial Training (12 weeks)

ENTRY REQUIREMENTS

SIJIL PELAJARAN MALAYSIA (SPM)
Min. 3 credits including Mathematics and a pass in Bahasa Melayu and Sejarah (History)

O LEVEL / IGCSE
Min. 3 credits including Mathematics

SIJIL TINGGI PERSEKOLAHAN MALAYSIA (STPM)
Min. a Grade C in any subjects

OTHER QUALIFICATIONS
Other equivalent qualifications recognised by the Ministry of Higher Education (MOHE) or Malaysian Government will be considered on a case-by-case basis

NOTE:

- Students without a credit in Mathematics at SPM level or its equivalent may be admitted if the Certificate programme contains subjects in Mathematics that are equivalent to Mathematics at SPM level.
- Students with a credit in computing-related subjects at SPM level or its equivalent may be given preferential consideration.

The University of South Australia is a globally connected and engaged university with industry-informed teaching and research that is inventive and adventurous. The university is ranked number one in Australia for quality education and with 100% of assessed research rated at or above world-class*. Degrees are designed with strong professional emphasis and in partnership with industry, giving students opportunities to gain practical skills and graduate career ready.

* *2018 Excellence in Research for Australia (ERA), 4-digit Fields of Research*

#1 in Australia for Quality Education
2020 THE Young University Impact Rankings

World Top 15 for Commitment to Equality
Ranked #15, 2020 THE University Impact Rankings (Reduced Inequalities Indicator) – Performance based on social research, policies for inclusion and access for underrepresented students and staff.

Ranked in the World's Top 50 under 50
*2020 THE Young University Rankings, 2021 QS Top 50 Universities Aged Under 50

#10 in Australia for Employer Satisfaction
2019 QILT Employer Satisfaction Survey – Overall Satisfaction Indicator

Top 5 Young University In Australia
Ranked #4, 2020 THE Young University Rankings

#2 Young University in Australia for Teaching Quality
2020 THE Young University Rankings

University of South Australia

Diploma in Information Technology
KPT/JPS (N/482/4/0213)(MQA/PA14019)12/27

As the world elevates to the era of Fourth Industrial Revolution (IR4.0), it has created a great demand for talents in the Information Technology (IT) and related industries.

This programme is designed to equip students with broad-based knowledge and future-oriented skills, such as Internet of Things (IoT), Cloud Computing and Cybersecurity. These Tech Disruptive Skills are highly sought after by the industry.
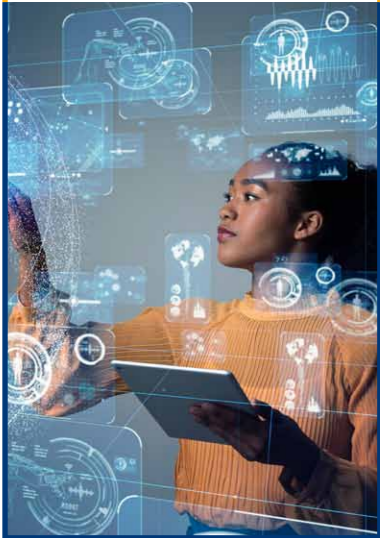
Upon completion of this programme, students can join the workforce, become technopreneurs or further their studies at our partner universities in any field of specialisation, such as IoT and Cybersecurity.

INTAKE
January, May & August

2.5
Years Programme

Specialise in the Internet of Things (IoT)
IoT is about connecting devices to "talk" through internet. Students learn to design, operate and apply IoT in various industries.

Compulsory Industrial Training
12-week industrial training in the final semester provides real-life working experience and seamless transition to employment.

Industry Certification
Students can obtain International Certification of Digital Literacy (ICDL) for various IR4.0 skills set, as well as be certified by AWS Academy as a Cloud Practitioner.

aws academy   **ICDL** The Digital Skills Standard

Future-oriented Curriculum
Exposure to IoT Data Analytics, Cloud Computing and Cybersecurity in IoT.

Entrepreneurship Driven
Build foundation as a Technopreneur through studies of Innovation, Entrepreneurship and Digital Business.

PROGRAMME STRUCTURE

YEAR 1	YEAR 2	YEAR 3
• Information Technology and Computer Science • Computer Organisation and Architecture • Fundamentals of Databases • Data Communication and Networking • Discrete Mathematics • Calculus and Algebra • Programming with C • Programming with Python • Design Thinking • Human Computer Interaction • Fundamentals of IoT • Processors and Peripherals • MPU I* • MPU II* • MPU III*	• Wireless Communications and Networking • IoT Sensors and Devices • Data Processing and Visualisation • Cloud Computing for IoT • Mobile Computing • Project Management • Web Computing • Cybersecurity in IoT • IoT Data Analytics • Capstone Project • MPU IV* • Elective I • Elective II • Elective III	• Industrial Training

ELECTIVE COURSES (choose 3 only)		
• Fundamentals of Innovation and Entrepreneurship • Digital Business	• Machine Learning • Embedded System • Fundamentals of Software Engineering	

*MATA PELAJARAN PENGAJIAN UMUM (MPU) SUBJECTS:	

• Pengajian Malaysia 2
• Information Literacy
• Character Formation
• Service Learning
• Bahasa Kebangsaan A
  For local students who do not have credit in SPM BM
• Bahasa Melayu Komunikasi 1
  For international students	

CAREER OPTIONS:		
• Web Designer • Web Developer • App Developer • Software Engineer • Programmer • System Analyst • System Software Programmer	• Analyst Programmer • IT Analyst • ICT Manager • ICT System Administrator • Network Consultant • IoT Specialist • IoT Automation Engineer	

NOTE:
* MPU Subjects: The Ministry of Higher Education (MOHE) requires all students to take Mata Pelajaran Umum (MPU) (i.e. General Studies) within the duration of their studies. MCKL established a series of subjects that different programmes need to implement for all students to meet the Ministry's requirements. Subjects will differ depending on the institution and the level of studies of the student.

Diploma in Computer Science
KPT/JPS (N/481/4/0825)(MQA/PA14018)12/27

As the world elevates to the era of Fourth Industrial Revolution (IR4.0), it has created a great demand for talents in the Computer Science (CS) and related industries.

This programme is designed to equip students with broad-based knowledge and future-oriented skills, such as Data Science, Cloud Computing and Machine Learning. These Tech Disruptive Skills are highly sought after by the industry.

Upon completion of this programme, students can join the workforce, become technopreneurs or further their studies at our partner universities in any field of specialisation, such as Software Engineering and Data Science.

INTAKE
January, May & August

2.5
Years Programme

Specialise in Data Science
An interdisciplinary study of computer science, mathematics and statistics to harness vital information from big data for decision making.

Future-oriented Curriculum
Exposure to Big Data Architecture, Cloud Computing and Machine Learning.

Compulsory Industrial Training
12-week industrial training in the final semester provides real-life working experience and seamless transition to employment.

Entrepreneurship Driven
Build foundation as a Technopreneur through studies of Innovation, Entrepreneurship and Digital Business.

Industry Certification
Students can obtain International Certification of Digital Literacy (ICDL) for various IR4.0 skills set, as well as be certified by AWS Academy as a Cloud Practitioner.

aws academy   ICDL The Digital Skills Standard

Integrated Professional Certification
Students will be awarded the SAS Academic Specialization upon completion of this programme.

SAS

PROGRAMME STRUCTURE

YEAR 1	YEAR 2	YEAR 3
• Information Technology and Computer Science • Computer Organisation and Architecture • Fundamentals of Databases • Data Communication and Networking • Discrete Mathematics • Calculus and Algebra • Programming with Python • Programming with R • System Analysis & Design • Design Thinking • Human Computer Interaction • Statistics** • MPU I* • MPU II* • MPU III*	• Fundamentals of Data Science** • Introduction to Data Mining** • Big Data Architecture • Cloud Computing for Big Data Analytics • Machine Learning** • Project Management • Data Processing and Visualisation** • Introduction to Data Governance • Data Structure and Algorithms • Capstone Project • MPU IV* • Elective I • Elective II • Elective III	• Industrial Training

** Uses SAS content and software.

ELECTIVE COURSES (choose 3 only)
- Fundamentals of Innovation and Entrepreneurship
- Digital Business
- Mobile Computing
- Web Computing
- Fundamentals of Software Engineering

*MATA PELAJARAN PENGAJIAN UMUM (MPU) SUBJECTS:
- Pengajian Malaysia 2
- Information Literacy
- Character Formation
- Service Learning
- Bahasa Kebangsaan A
  For local students who do not have credit in SPM BM
- Bahasa Melayu Komunikasi 1
  For international students

CAREER OPTIONS:
- Applications Developer
- Programmer
- Software Engineer
- Software Architect
- Software Developer
- Systems Analyst
- Research Analyst
- Systems Developer
- Technical Support Engineer
- IT Analyst
- Network Engineer
- Database Administrator
- Data Analyst
- Data Engineer

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Since its establishment in 1983, the College has gained a reputation of providing quality private education in the best of Methodist traditions. The educational experience is underpinned by core values, ethical standards and community involvement. Experienced lecturers teach classes and they give personal attention to their students. The College also provides student counselling (personal and academic), including making career choices and support for university applications.

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Veritas Vincit Omnia