



COMPUTING



Teaching | Academic Development | Employability
Facilities | Inclusiveness | Specialist Criteria (if applicable)

www.nilai.edu.my

COMPUTING

DIPLOMA IN INFORMATION TECHNOLOGY

JPT/BPP/RS/075/4/0020/09/27, (MQA/FAI/6893)

DURATION

Full time: 2.5 years

INTAKE

January / June / September

SCHOLARSHIP/AID

Available

DIPLOMA IN COMPUTER SCIENCE

JPT/BPP/RS/0613/4/0250/06/28, (MQA/A3229)

DURATION

Full time: 2.5 years

INTAKE

January / June / September

SCHOLARSHIP/AID

Available

PROGRAMME MODULES

Year 1

Core Modules

- Principles of Entrepreneurship
- Introduction to Public Speaking
- Statistics
- Understanding Computing
- Computer Organisation
- Structured Programming
- Web Development
- Calculus and Algebra
- Introduction to Computer Network
- Cybersecurity Fundamentals

Year 2

Core Modules

- Discrete Mathematics
- Object Oriented Programming
- Internet Programming
- Systems Analysis and Design
- Database Development
- Operating Systems
- Information Systems
- Human-Computer Interaction
- Summative (Computing Project)
- Introduction to Artificial Intelligence

- Introduction to Cloud Computing
- Data Communications and Networking
- Introduction to IoT
- Programming with Python
- IT Project Management

*Internship begins at the completion of year 2

PROGRAMME MODULES

Year 1

Core Modules

- Principles of Entrepreneurship
- Introduction to Public Speaking
- Statistics
- Understanding Computing
- Computer Organisation
- Structured Programming
- Web Development
- Calculus and Algebra
- Introduction to Computer Network
- Cybersecurity Fundamentals

Year 2

Core Modules

- Software Engineering
- Discrete Mathematics
- Object Oriented Programming
- Internet Programming
- Systems Analysis and Design
- Database Development
- Operating Systems
- Human Computer Interaction
- Platform Based Development
- Introduction to Artificial Intelligence

- Algorithms and Complexity
- Programming with Python
- Systems Fundamentals
- Parallel and Distributed Computing
- Summative (Computing Project)

*Internship begins at the completion of year 2

SUMMARY OF ENTRY REQUIREMENTS

SPM

- Pass with credit in at least three (3) subjects (inclusive of Mathematics or equivalent); or

O-Level

- Pass with at least Grade C in any three (3) subjects, including Mathematics; or

Unified Examination Certificate (UEC)

- Pass with at least Grade C in any three (3) subjects, including Mathematics; or

STPM

- Pass with a minimum Grade C (GP 2.00) in a subject and credit in Mathematics at SPM Level or its equivalent; or

STAM

- Pass with a minimum grade of Maqbul and credit in Mathematics at SPM Level, or its equivalent; or

SKM (Level 3) in related field

- Pass. Internal assessment on Mathematics competency may be carried out; or

Certificate (MQF Level 3) in related field

- Pass with at least CGPA 2.00.

Note: Candidates with a pass in Mathematics at SPM level may be admitted if their admission qualification contains Mathematic subjects equivalent to SPM level. Otherwise, they need to take a reinforcement Mathematic subject in the first semester.

COMPUTING

BACHELOR OF INFORMATION TECHNOLOGY (HONS)

JPT/BPPR3/06116/0206 | 08/28, (MQA/A0104)

DURATION
Full time: 3 years

INTAKE
January / June / September

SCHOLARSHIP/AID
Available

PROGRAMME MODULES

Year 1: Core Modules

- C Programming
- Introduction to Information Systems
- Software Modeling and Analysis
- Database Systems
- Computer Architecture and Organisation
- Introduction to Object Oriented Programming
- Web Development
- Operating Systems Principles
- Information Technology Fundamentals
- Introduction to Data Communications and Networking

Year 2: Core Modules

- Object Oriented Software Development
- Cloud Architecture
- Software Design and Architecture
- Data Communications and Networking
- Human Computer Interaction
- Artificial Intelligence
- Routing and Switching
- Internet of Things
- Cybersecurity
- Discrete Structure

Year 3: Core Modules

- Network Construction and Administration
- Software Project Management
- Information Assurance Security
- Final Year Project I
- Final Year Project II
- Enterprise Resource Planning
- Dynamic Web Programming
- IoT Smart Application Development
- Big Data Analytics
- Blockchain Technology
- Internship

BACHELOR OF INFORMATION TECHNOLOGY (HONS) (INTERNET ENGINEERING AND CLOUD COMPUTING)

JPT/BPPR3/06116/0086 | 07/28, (MQA/FA5716)

DURATION
Full time: 3 years

INTAKE
January / June / September

SCHOLARSHIP/AID
Available

PROGRAMME MODULES

Year 1: Core Modules

- C Programming
- Introduction to Information Systems
- Software Modeling and Analysis
- Database Systems
- Computer Architecture and Organisation
- Introduction to Object Oriented Programming
- Web Development
- Operating Systems Principles
- Information Technology Fundamentals
- Introduction to Data Communications and Networking

Year 2: Core Modules

- Object Oriented Software Development
- Cloud Architecture
- Internet and Cloud Principles
- Software Design and Architecture
- Data Communications and Networking
- Human Computer Interaction
- Artificial Intelligence
- Routing and Switching
- Cybersecurity
- Discrete Structure

Year 3: Core Modules

- Network Construction and Administration
- Software Project Management
- Internet and Cloud Security
- Service Oriented Architecture
- IECC Project I
- IECC Project II
- Advanced Web Technologies
- Cloud Storage Infrastructure
- Dynamic Web Programming
- Blockchain Technology
- Internship

COMPUTING

BACHELOR IN INFORMATION TECHNOLOGY (CYBERSECURITY) (HONOURS)

JPT/BPP/N/0611/0021/07/28 (MQA/PA1653)

DURATION
Full time: 3 years

INTAKE
January / June / September

SCHOLARSHIP/AID
Available

PROGRAMME MODULES

Year 1: Core Modules

- C Programming
- Introduction to Information Systems
- Software Modeling and Analysis
- Database Systems
- Computer Architecture and Organisation
- Introduction to Object Oriented Programming
- Web Development
- Operating Systems Principles
- Information Technology Fundamentals
- Introduction to Data Communications and Networking

Year 2: Core Modules

- Object Oriented Software Development
- Cloud Architecture
- Software Design and Architecture
- Data Communications and Networking
- Human Computer Interaction
- Artificial Intelligence
- Routing and Switching
- Data Security
- Cybersecurity
- Discrete Structure

Year 3: Core Modules

- Network Construction and Administration
- Software Project Management
- Information Assurance Security
- Network Security
- Dynamic Web Programming
- Ethical Hacking
- Cyberlaw
- Vulnerability Assessment and Penetration Testing
- Cybersecurity Project I
- Cybersecurity Project II
- Internship

BACHELOR IN SOFTWARE ENGINEERING (HONOURS)

JPT/BPP/R/0613/0/0673/07/27, (MQA/FA5717)

DURATION
Full time: 3 years

INTAKE
January / June / September

SCHOLARSHIP/AID
Available

PROGRAMME MODULES

Year 1: Core Modules

- C Programming
- Software Modeling and Analysis
- Database Systems
- Computer Architecture and Organisation
- Introduction to Object Oriented Programming
- Operating Systems Principles
- Understanding Computing
- Introduction to Data Communications and Networking
- Python Programming
- Software Systems Engineering

Year 2: Core Modules

- Data Structure and Algorithms
- Object Oriented Software Development
- Software Design and Architecture
- Human Computer Interaction
- Artificial Intelligence
- Software Process
- Software Security and Safety
- Software Requirements Engineering
- Mobile Application Development
- Cloud Computing Application

Year 3: Core Modules

- Software Project Management
- Software Quality and Measurement
- Software Evolution
- Software Verification and Validation
- SE Project I
- SE Project II
- Big Data Analytics
- Machine Learning
- Back End Web Development
- Software Design Pattern and Technology
- Internship

COMPUTING

BACHELOR OF COMPUTER SCIENCE (HONOURS) (DATA SCIENCE)

JPT/BPPR3/063/6/0024/08/28, (MQA/A9105)

DURATION

Full time: 3 years

INTAKE

January / June / September

SCHOLARSHIP/AID

Available

PROGRAMME MODULES

Year 1:

Core Modules

- C Programming
- Software Modeling and Analysis
- Database Systems
- Computer Architecture and Organisation
- Introduction to Object Oriented Programming
- Web Development
- Operating Systems Principles
- Understanding Computing
- Introduction to Data Communications and Networking
- Python Programming

Year 2:

Core Modules

- Data Structure and Algorithms
- Computer Graphics
- Object Oriented Software Development
- Software Design and Architecture
- Human Computer Interaction
- Artificial Intelligence
- Statistical Methods for Data Science
- Data Science
- Discrete Structures
- Information Assurance Security

Year 3:

Core Modules

- Theory of Computation
- Software Project Management
- Big Data Analytics
- Machine Learning
- Data Mining and Predictive Analytics
- Platform Based Development
- Parallel and Distributed Computing
- Data Science Project I
- Data Science Project II
- Data Visualisation
- Internship

BACHELOR IN COMPUTER SCIENCE (HONOURS) ARTIFICIAL INTELLIGENCE)

JPT/BPPIN/063/6/0090/07/29, (MQA/PA17457)

DURATION

Full time: 3 years

INTAKE

January / June / September

SCHOLARSHIP/AID

Available

PROGRAMME MODULES

Year 1:

Core Modules

- C Programming
- Software Modeling and Analysis
- Database Systems
- Computer Architecture and Organisation
- Introduction to Object Oriented Programming
- Web Development
- Operating Systems Principles
- Understanding Computing
- Introduction to Data Communications and Networking
- Python Programming

Year 2:

Core Modules

- Data Structure and Algorithms
- Computer Graphics
- Object Oriented Software Development
- Software Design and Architecture
- Human Computer Interaction
- Artificial Intelligence
- Discrete Structures
- Fuzzy Logic-Based Expert System
- Information Assurance Security
- Machine Learning

Year 3:

Core Modules

- Theory of Computation
- Software Project Management
- Computer Vision and Image Processing
- Big Data Analytics
- Platform Based Development
- Parallel and Distributed Computing
- Artificial Intelligence in Robotics
- Deep Learning
- AI Project I
- AI Project II
- Internship

COMPUTING

Bachelor of Information Technology (Hons)

Bachelor of Information Technology (Hons) (Internet Engineering and Cloud Computing)

Bachelor in Information Technology (Cybersecurity) (Honours)

SUMMARY OF ENTRY REQUIREMENTS

STPM

- Pass with a minimum Grade C (GP 2.00) in any two (2) subjects and a credit in Mathematics at SPM Level or its equivalent; or

A-Level

- Pass with a minimum Grade D in any two (2) subjects and a credit in Mathematics at SPM Level or its equivalent; or

Unified Examination Certificate (UEC)

- Pass with at least Grade B in any five (5) subjects and a credit in Mathematics at SPM Level or its equivalent; or

Foundation/ Matriculation

- Pass with a minimum CGPA 2.00 and a credit in Mathematics at SPM Level or its equivalent; or

Diploma in Computer Fields (Level 4, MQF) or equivalent

- Pass with a minimum CGPA 2.50; Candidates with CGPA below 2.50 may need to undergo an internal evaluation; or

Diploma in Non-Computing Fields field (Level 4, MQF)

- Pass with a minimum CGPA 2.75 and a credit in Mathematics at SPM Level or its equivalent; Candidates with CGPA below 2.75 but more than 2.50 may need to undergo an internal evaluation; or

DKM/DVM/DLKM/ ADVANCED DIPLOMA (LEVEL 5, MQF)**

- Pass with a minimum CGPA of 2.50; or

STAM

- Pass with minimum grade of Jayaid in any two (2) subjects and credit in Mathematics at SPM level.

**DKM - Diploma Kemahiran Malaysia/DVM - Diploma Vokasional Malaysia/DLKM - Diploma Lanjutan Kemahiran Malaysia

Note: Candidates without credit in Additional Mathematics can be admitted with credit in Mathematics and any one of the Science, Technology or Engineering subjects at SPM level or its equivalent. Candidates may need to take and pass the reinforcement Mathematics subject in the first semester. For candidates with Matriculation/Foundation, the reinforcement mathematics is waived if the Mathematics at that level is equivalent/more than the Additional Mathematics offered at SPM.

COMPUTING

Bachelor in Software Engineering (Honours)

Bachelor of Computer Science (Honours) (Data Science)

Bachelor in Computer Science (Honours) (Artificial Intelligence)

SUMMARY OF ENTRY REQUIREMENTS

STPM (Arts Stream)

- Pass with a minimum Grade C (GP 2.00) in any two (2) subjects and credit in Additional Mathematics at SPM level or its equivalent; or

STPM (Science Stream) or its equivalent

- Pass in STPM (Science Stream) with minimum Grade C (GP 2.00) in Mathematics and one (1) Science/ICT subject; or

A-Level

- Pass with at least Grade B in any five (5) subjects and a credit in Mathematics at SPM Level or its equivalent; or

Unified Examination Certificate (UEC)

- Pass with a minimum of Grade D in any two (2) subjects and credit in Additional Mathematics at O-level or its equivalent; or

STAM

- Pass with a minimum Grade of Jayyid in any two (2) subjects and credit in Additional Mathematics at SPM level or its equivalent; or

Foundation / Matriculation

- Pass with a minimum CGPA of 2.00 and credit in Additional Mathematics at SPM level or its equivalent; or

Diploma in Science and Technology (Level 4, MQF)

- Pass with a minimum CGPA of 2.75 and credit in Additional Mathematics at SPM level or its equivalent. Candidates with a CGPA below 2.75 but more than 2.50 may need to undergo an internal evaluation; or

Diploma in Computing Fields

- Pass with a minimum CGPA of 2.50 Candidates with a CGPA below 2.50 but more than 2.00 may need an internal evaluation; or

DKM/DVM/DLKM / ADVANCED DIPLOMA (LEVEL 5, MQF)**

- Pass with a minimum CGPA of 2.50.

** DKM - Diploma Kemahiran Malaysia/DVM - Diploma Vokasional Malaysia/DLKM - Diploma Lanjutan Kemahiran Malaysia

Note: Candidates without credit in Additional Mathematics can be admitted with credit in Mathematics and any one of the Science, Technology or Engineering subjects at SPM level or its equivalent. Candidates may need to take and pass the reinforcement Mathematics subject in the first semester. For candidates with Matriculation/Foundation, the reinforcement mathematics is waived if the Mathematics at that level is equivalent/more than the Additional Mathematics offered at SPM.

CAREER PROSPECTS

- Software and Application Developer
- Software Analyst
- Software Developers
- Application Programmers
- Web Developer
- Information Systems Manager
- Information Technology Consultant
- Multimedia Programmer
- Software Engineer
- Application Analyst
- Database Administrator
- IT Technical Support Officer
- Software Tester
- Computer and Information Systems Manager
- Computer Network Architects
- Network Administrator
- System Administrator
- Data Analyst
- Data Centre Technician
- Data Scientist
- Data Engineer
- Data Architect
- Database Analyst
- Hardware Engineer
- Data Analytics Manager
- Hardware Engineer
- Network Engineer
- Business Analyst
- Data Analytics Manager
- Machine learning Engineer
- Cloud Architect
- Cloud Data Scientist
- Cloud Consultant
- Cloud Engineer
- Cloud Automation Engineer
- Cloud Software Engineer
- Cloud Security Analyst
- Cloud Support Engineer
- Cloud Administrator
- Cybersecurity Specialist
- Cybersecurity Manager
- Security Consultants
- Ethical Hackers
- Penetration Tester
- Cybersecurity Analyst
- Digital Forensic Examiner
- IT security Administrator
- Security Engineer
- Security Architect

COMPUTING

For more information, please contact our Education Counsellors.

Student Recruitment Department
Nilai University

Nilai University DU032(N)
No. 1, Persiaran Universiti, Putra Nilai,
71800 Nilai, Negeri Sembilan, Malaysia.

Tel: +606-850 5301/ 2308 | Email: study@nilai.edu.my

Malaysian Students

 +6017-350 1188

International Students

 +6017-381 6688