IGNITE YOUR CREATIVITY

SCHOOL OF COMPUTING & TECHNOLOGY

PRE-UNIVERSITY PROGRAMME
Degree Foundation Programme

DIPLOMA PROGRAMMES
Diploma in Information & Communications Technology
Diploma in Information & Communications Technology with a specialization in Software Engineering
Diploma in Business with Information Technology

DEGREE PROGRAMMES
Computing & IT Programmes
BSc (Hons) in Information Technology
BSc (Hons) in Information Technology with a specialization in:
  - Information System Security
  - Database Administration
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
BSc (Hons) in Software Engineering
BSc (Hons) in Internet Technology
BSc (Hons) in Enterprise Computing
BSc (Hons) in Entrepreneurship

Interactive Entertainment Technology Programmes
BSc (Hons) in Computer Games Development
BSc (Hons) in Multimedia Technology
BSc (Hons) in Web Media Technology
BSc (Hons) in Web Media Technology with a specialization in Educational Technology
BSc (Hons) in Media Informatics
BA (Hons) in Media Marketing with a specialization in Social Media

Degrees awarded in association with Staffordshire University

www.apu.edu.my
The Asia Pacific University of Technology & Innovation (APU) is amongst Malaysia’s Premier Private Universities, and is where a unique fusion of technology, innovation and creativity works effectively towards preparing graduates for significant roles in business and society globally. APU has earned an enviable reputation as an award-winning University through its achievements in winning a host of prestigious awards at national and international levels.

Originally established as the Asia Pacific Institute of Information Technology (APIIT) in 1993 and Asia Pacific University College of Technology & Innovation (UCTI) in 2004, APU’s sound approach to nurturing school leavers into qualified professionals has resulted in our graduates being highly sought after by employers. With an international student community from more than 100 countries studying in its Malaysian campus, APU offers a truly cosmopolitan learning environment which prepares students well for the global challenges which lie ahead. APU offers a wide range of degrees with Technology as a common core.

It is APU’s aim to nurture and encourage innovation through our programmes of study, with the intention of producing individuals who will learn, adapt and think differently in new and better ways.

The Asia Pacific University has and always will, continue to develop and deliver its academic programmes through unique and well-established international partnerships, particularly with Staffordshire University UK but also with other partners throughout the world. This formidable combination of Malaysian homegrown programmes fortified with international benchmarking, provides our students with the assurance that the qualifications gained from APU truly meet international quality standards.

APU was announced as among the Highest Rated Universities in Malaysia, being rated at TIER 5 (EXCELLENT) under the SETARA 2011 Ratings by the Ministry of Higher Education (MOHE) and Malaysian Qualifications Agency (MQA) which was announced by the Y.Bhg. Minister of Higher Education on 1st November 2012.

APU’s achievements bear testimony to our commitment to excellence in higher education and training, as well as innovative research and development and commercialisation. APU (via APIIT) is Malaysia’s first Institution to achieve Multimedia Super Corridor (MSC) Company Status. Through our network of APIIT Education Group branch campuses established in Sri Lanka and India, APU also reaches out to young aspiring professionals in these countries, providing them with a unique opportunity of experiencing international best practices in higher education using curricula, processes, resources and systems which have been developed in Malaysia. APU’s academic programmes are approved by the Ministry of Higher Education of Malaysia and the qualifications are accredited by the Malaysian Qualifications Agency (MQA).
The APIIT Education Group received the prestigious Prime Minister’s Industry Excellence Award from the Prime Minister of Malaysia, Dato’ Seri Mohd Najib Tun Razak. Only one organisation was selected to receive the Prime Minister’s Industry Excellence Award from among nearly 30 other award recipients in 8 different categories.

The Industry Excellence Awards, organised by the Ministry of International Trade & Industry (MITI), recognise and reward organisations for organisational excellence including competitiveness, innovativeness, market presence and export performance. Winning the Prime Minister’s Industry Excellence Award is a significant milestone and an honour for APU as a leader in higher education. The award truly reflects our commitment and focus on quality, innovation, graduate employability and internationalisation.
Staffordshire University has over 17,000 students that make up a dynamic and vibrant community at their campuses in the United Kingdom. Staffordshire University has a long and proud history of providing high quality, progressive and inclusive higher education for people from across Staffordshire, the region, the UK and the rest of the world. Staffordshire University has a reputation for producing graduates with the knowledge, skills and ability to make their mark in the world.

Some facts about Staffordshire University are:

- Staffordshire University’s strong focus on employability was underlined in the UK Sunday Times newspaper’s 2010 University League Tables, in which it was recognised as a leading UK university for achieving graduate employment.
- One of the first universities in the world to offer computing degrees back in the 1960s, Staffordshire maintains a strong reputation for excellence and innovation in teaching technology-based subjects.
- The University’s Computing, Computer Games Design, Network Security, Mechanical, Electrical, Electronic and Automotive Engineering awards are all highly respected by employers globally.
- Staffordshire’s Accounting and Finance, Business Studies, Economics, Management and Marketing degrees have all been designed to provide a truly international perspective. This is a real benefit for students wishing to pursue a career in Business or Commerce.
- The University’s learning community is truly global. At any one time, in excess of 17,000 students from over 75 countries are studying in Great Britain, by distance learning, or on Staffordshire University quality-accredited courses internationally.

APU’s programmes are subjected to extensively External Quality Assurance processes by Staffordshire University, who also award the Undergraduate Degrees. This ensures that our programmes are benchmarked against international standards.

In addition, our solid relationship with Staffordshire University is among the strongest and most successful foreign collaborations in Malaysia, and is particularly notable in our strong shared mission of producing highly employable graduates.

All these things combine to create a university with considerable global expertise - a university that APU is proud to partner with.
The aims of the APU Computing & Technology Programmes are to:

• Facilitate your progression, both academic and practical, by developing knowledge, key skills and the capacity for independent and lifelong learning
• Develop your skills in imaginative problem-solving and decision-making
• Help you develop a Personal Development Portfolio to support your career aspirations
• Provide you with a stimulating, interactive and accessible course of study that gives you a sound grasp of Information Technology knowledge & analysis and contemporary issues which you can develop and apply in your future employment
• Develop your imagination and innovative abilities and help you show initiative and creativity in your work
• Develop your intelligence, ingenuity, inventiveness and independence as well as your communication skills

Learning for Employability

Employers look for qualified people who have the technical know-how and the ability to communicate, work in teams and other personal skills.

At APU, our programmes are developed to provide you not only with interesting and stimulating modules to develop your mind, but also to enhance your knowledge and skills and increase your ability to compete for that dream job. You also need to possess the ability to learn, develop and adapt. Much of what is current knowledge will soon be out-of-date and the reality is that to succeed you need to be adaptable and innovative. We achieve this through the Five “I”s Model™:

The Five “I”s Model™

1: **Innovation** through the design of curriculum, the module content and the learning approaches
2: **Integration** through developing your capabilities to interrelate knowledge and to work in multidisciplinary teams
3: **Information** through developing your knowledge and also your abilities to communicate effectively and persuasively
4: **Interactivity** through the use of group work to develop your teamwork skills and through the use of technology to achieve interactivity of devices and people
5: **Imagination** in relation to new products, ideas, applications and solutions
The Dual Degree Programmes (DDP)

The Dual Degree Programmes are offered through a unique collaborative partnership between APU and Staffordshire University, United Kingdom, through which Staffordshire accredits undergraduate programmes that are designed and delivered by APU. On completion of the programme, students will be awarded two undergraduate degree Certificates and Transcripts: one from APU and one from Staffordshire University.

The programme provides students with enhanced opportunities for further study and career development, especially since both degrees are earned from reputed and quality Institutions from two different countries. The most obvious benefit of the partnership is the opportunity for students to gain degrees from Malaysian and UK higher education institutions that are recognised locally and internationally.

The APU-Staffordshire Dual Degree Programmes are offered under an approved collaboration in accordance with the Code of Practice for the Assurance of Academic Quality and Standards in Higher Education as published by the United Kingdom Quality Assurance Agency’s (QAA). APU’s academic programmes are approved by the Ministry of Higher Education of Malaysia and the qualifications are accredited by the Malaysian Qualifications Agency (MQA).
### Careers in Computing & Technology

There are many career options within the IT industry and in organisations that are dependent on IT for their efficient and effective operation. Some examples include:

<table>
<thead>
<tr>
<th>Programme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSc (Hons) in Information Technology</strong></td>
<td>Mainstream functional roles such as systems analysts, analyst programmers, IT executives, information systems analysts and IT consultants. Needs exist in virtually all industries.</td>
</tr>
<tr>
<td><strong>BA (Hons) in Media Marketing with a specialism in Social Media</strong></td>
<td>Employment options include: Social Media Strategist, Internet Marketer, Feature Blogger, Communication Specialist, Interactive Media Designer, Exhibition and Environmental Designer, Copywriter, Account Planner, Creative Director, Brand Strategist and Strategic Planner.</td>
</tr>
</tbody>
</table>

While all students on the IT programme will be prepared for mainstream functional roles as IT professionals, the specialisms will allow greater emphasis on a particular area of IT, which will most likely influence the choice of careers.

- **Information System Security**
  - Functional roles as IT security officers / analysts / consultants, involved in designing and implementing security infrastructure / solutions for organisations.

- **Database Administration**
  - Database administration is an area of IT operations that is common to all enterprises, and Database Administrator (DBA) consistently makes the top ten in rankings of the best technology jobs.

- **Intelligent Systems**
  - Functional roles in designing and developing solutions involving Artificial Intelligence and Decision Support, Knowledge Engineering and Data Mining.

- **Network Computing**
  - Functional roles in network design, implementation and troubleshooting. Typical jobs include network analysts, network consultants and systems engineers.

- **Forensic Computing**
  - Functional roles within IT security requiring the ability to analyse computerised logs, dumps and other sources of data for purposes of auditing and investigating cases of security breaches and possible computer-related crimes.

- **Mobile Technology**
  - Your specialist knowledge of design issues in the mobile communications sector, with its developing needs for hardware, software and systems will make you highly sought after in the fast-moving and growing sector.

- **Business Information Systems**
  - You will be well suited to one of the many careers that use IT in business at a management level. Your graduate destination is likely to be within an IT department, developing IT systems and servicing the IT needs of a number of business departments such as finance, marketing or human resources. You may take up a career in IT systems development, IT systems analysis and design or IT network management.

- **BSc (Hons) in Software Engineering**
  - You will have acquired the knowledge and techniques to be employed as an application development and software engineer as required by a wide variety of companies and organisations.

- **BSc (Hons) in Internet Technology**
  - You will be able to master appropriate design, development and implementation skills to design and implement multimedia applications using appropriate platforms, tools and techniques. The degree will assist you to gain employment as a web designer or developer.

- **BSc (Hons) in Enterprise Computing**
  - Functional roles in the design of enterprise-wide applications and infrastructure for medium- to large-scale organisations. Typical jobs include Solutions Architects, Enterprise Systems Consultants and others.

- **BSc (Hons) in Technopreneurship**
  - Likely to join an innovative IT or technopreneur organisation or start their own similar business. This includes the capacity to act as entrepreneur leaders, champions of new ideas, coordinators of business plans or promoters of new innovations in a variety of technological environments. Ideally placed as the bridge between business people and innovators, for example investors, government agencies and venture capitalist.

- **BSc (Hons) in Computer Games Development**
  - Primarily involved in designing and developing interactive games to be deployed over a wide variety of platforms, using a wide range of techniques. Jobs include Games Programmers, Games Developers and others.

- **BSc (Hons) in Multimedia Technology**
  - This qualification will assist you to gain employment as a multimedia practitioner and you will enter the employment market with the advantages of strong technical skills in software design and information systems development in the context of building quality interactive multimedia applications.

- **BSc (Hons) in Web Media Technology**
  - Primarily focused on the design, development and deployment of Interactive Multimedia over the Web and related platforms. Jobs include Webmasters, Web Developers and others.

- **BSc (Hons) in Web Media Technology with a specialism in Educational Technology**
  - You will be prepared to work with a variety of stakeholders and subject matter experts to analyse needs, design, develop, test, and deploy Computer Based Training (CBT) and Web Base Training (WBT) materials that are grounded in an appropriate theoretical foundation, meet accepted professional standards, and are innovative, creative, and engaging.

- **BSc (Hons) in Media Informatics**
  - Employment options include advertising, promotions and PR, as well as the press and broadcast organisations. Functional areas include creative, media production (pre and post), sales and customer service.

- **BA (Hons) in Media Marketing with a specialism in Social Media**
  - Employment options include: Social Media Strategist, Internet Marketer, Feature Blogger, Communication Specialist, Interactive Media Designer, Exhibition and Environmental Designer, Copywriter, Account Planner, Creative Director, Brand Strategist and Strategic Planner.
Whether you join APU immediately after your secondary education or transfer to us from another institution of higher learning, we offer programmes at several levels and entry points, depending on your prior qualifications and experience. There will be a clear progression of your learning to ensure that you will be empowered with the necessary skills and knowledge to enter the corporate world.

At APU, our Computing & IT programmes are designed to provide flexibility and choice. The Computing & IT Degree programmes have the same modules in the first year except Computer Games Development, E-Commerce Technology, Technopreneurship, Multimedia Technology, Web Media Technology and Media Informatics. This then allows you to decide which Computing & IT degrees you would like to choose in the second year and continue in the third year to graduation.

If you enter our Foundation programme first, you will take a range of modules that prepare you for the degree and help you to select which degree to pursue. At all times, our staff will be able to advise you on the choices available at each stage of your study.

**Overall Programme Structure**

**Foundation**
3 semesters / 1 year full-time

**Diploma**
5 semesters / 2 years full-time

**Honours Degree**
6 semesters / 3 years full-time
Admission Requirements

**FOUNDATION PROGRAMME**

The Foundation Programmes give you an opportunity to sample your future study areas and this helps you choose which Degree Level 1 Programme you will eventually pursue.

- An overall credit pass in at least 5 subjects at SPM level including Mathematics and a minimum of a pass in Bahasa Malaysia and Sejarah (History); or
- 5 grade C passes at ‘O’ Level / GCSE; or
- A qualification that APU accepts as equivalent to the above.

**DIPLoma PROGRAMMES**

- An overall credit pass in 3 subjects including Mathematics and a minimum of a pass in Bahasa Malaysia and Sejarah (History) at SPM level;
- 3 Grade C passes at ‘O’ Levels / GCSE; or
- A qualification that APU accepts as equivalent to the above.

**BACHELORS (HONS) DEGREE PROGRAMMES**

**Direct Entry to Level 1 of the Degree:**

- 2 principal passes at STPM level; or
- 2 passes at ‘A’ Levels and 4 Grade C passes at ‘O’ Levels / GCSE; or
- The APU Foundation or equivalent; or
- A qualification that APU accepts as equivalent to the above.

**Direct Entry to Level 2 of the Degree:**

- Successful completion of the APU Diploma; or
- Successful completion of studies in another recognised institute with academic credits equivalent to Level 1 of an Honours degree.

*(Subject to the approval of the APU Academic Board)*

**ENGLISH REQUIREMENTS**

*(only applicable for International Students)*

**Foundation and Diploma Programmes**

- IELTS : 5.5
- TOEFL : 65 (Internet Based Test), 513 (Paper Based Test), 183 (Computer Based Test)
- Other Certification or Evidence of English Proficiency that APU accepts as equivalent to the above

Applicants who do not possess the above will be required to sit for the APU English Placement Test, and based on the outcome of the test may be required to attend the APU Intensive English Programme (IEP) prior to commencement of the Foundation/Diploma programme.

**Bachelors (Hons) Degree Programmes**

- IELTS : 6.0
- TOEFL : 79-80 (Internet Based Test), 550 (Paper Based Test), 213 (Computer Based Test)
- Other Certification or Evidence of English Proficiency that APU accepts as equivalent to the above

Applicants who do not possess the above will be required to sit for the APU English Placement Test, and based on the outcome of the test may be required to attend the APU Intensive English Programme (IEP) prior to commencement of the Degree programme.

*(Note that for the programmes listed here, a pass in Bahasa Malaysia and Sejarah (History) at SPM level is required for all Malaysian students).*
Flexibility of Choice

Our 12-month Foundation Programme is designed to prepare those with SPM, ‘O’ Levels or similar qualifications with the knowledge and skills to progress into the first year of a degree of their choice.

On completion of the Foundation Programme, you will be able to make an informed decision about your interest and pursue your degree of choice.

During the Foundation Programme, you are able to choose different routes depending on your area of interest. This will allow you to progress onto a specific degree programme at APU, related to this area or other relevant areas based on your foundation experience.

**DEGREE PROGRAMMES**

**ROUTE A**
- Business & Finance
  - Business
  - Media
  - Services & Tourism
  - Accounting & Finance
  - Banking & Finance
  - Social Media

**ROUTE B**
- Technology and Business & Finance
  - Computing / IT
  - Games Development
  - Business
  - Media
  - Services & Tourism
  - Accounting & Finance
  - Banking & Finance
  - Actuarial Studies
  - Management Science
  - Social Media
  - Insurance

**ROUTE C**
- Engineering & Technology
  - Engineering
  - Computing / IT
  - Games Development
  - Actuarial Studies
  - Management Science
  - Insurance

This programme is designed to help those with SPM, ‘O’ Levels or similar qualifications to develop the skills and knowledge to progress into the first year of a degree of their choice.

**LEARNING OUTCOMES**

You will be able to:
- Enter Level 1 of degree study
- Make an informed choice about what degree you want to study
- Demonstrate an awareness of the concepts which underpin the study of Business, Technology, Media, Accounting, Banking and Finance, Quantitative Studies, IT or Engineering
- Communicate effectively verbally and in writing to a given audience
- Work effectively in a team
- Demonstrate English and other study skills appropriate to undergraduate learning
- Apply skills in numeracy, technology and communication
- Explain the essential elements of technology
- Use appropriate application software and the Internet
The Foundation Programme

The modules studied help develop your study skills, introduce you to what you can expect on your degree and also allow you to discover what you can study depending on whether you choose a degree in Business, Accounting & Finance, Banking & Finance, Actuarial Studies, Media, Information Technology or Engineering. The modules are:

SEMIESTER 1
• English for Academic Purposes (4 credits)
• Mathematics (3 credits)
• Communication Skills (4 credits)
• IT Applications (4 credits)
• Personal Development & Study Methods (4 credits)
• Introduction to Business (4 credits)
• Individual, State and Society (3 credits)

SEMIESTER 2
• Global Business Trends (3 credits)
• Optional Modules [Choose ONE (1)]
  - Cultural & Visual Interpretation (4 credits)
  - Public Speaking in English (4 credits)
  - International Relations (4 credits)
• Further Mathematics (3 credits)
• Optional Modules [Choose ONE (1)]
  - Cultural & Visual Interpretation (4 credits)
  - Public Speaking in English (4 credits)
  - International Relations (4 credits)
• Further Mathematics (3 credits)
• Optional Modules [Choose ONE (1)]
  - Cultural & Visual Interpretation (4 credits)
  - Public Speaking in English (4 credits)
  - International Relations (4 credits)

SEMIESTER 3
• Economics for Business (3 credits)
• Principles of Accounts (4 credits)
• Perspectives in Technology (4 credits)
• Academic Research Skills (4 credits)
• Co-curricular (2 credits)
• Introduction to Multimedia Applications (3 credits)
• Computing & IT (4 credits)
• Perspectives in Technology (4 credits)
• Academic Research Skills (4 credits)
• Co-curricular (2 credits)

You may then proceed to LEVEL 1 of a Degree of your choice in the following pathways:

PROGRAMME PATHWAYS

ROUTE A
• Business
  - Business Management
  - E-Business
  - International Business Management
  - Marketing
  - Human Resource Management
• Tourism Management
• Services Management
• Media Marketing
• Social Media
• Technopreneurship
• Media Informatics
• Accounting & Finance
• Forensic Accounting
• Taxation
• Forex and Investments
• Banking & Finance
• Financial Planning
• Investment and Risk Management
• Islamic Banking & Finance

ROUTE B
• Information Technology
  - Database Administration
  - Information System Security
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
  - Software Engineering
  - Internet Technology
  - Enterprise Computing
  - Technopreneurship
  - Computer Games Development
  - Multimedia Technology
  - Web Media Technology
  - Educational Technology
• Media Informatics
• Business
• Business Management
• E-Business
• International Business Management
• Marketing
• Human Resource Management
• Tourism Management
• Services Management
• Media Marketing
• Social Media
• Accounting & Finance
• Forensic Accounting
• Taxation
• Forex and Investments
• Banking & Finance
• Financial Planning
• Investment and Risk Management
• Islamic Banking & Finance

ROUTE C
• Engineering
  - Electrical & Electronic Engineering
  - Telecommunication Engineering
  - Mechatronic Engineering
  - Information Technology
  - Database Administration
  - Information Systems Security
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
  - Software Engineering
  - Internet Technology
  - Enterprise Computing
  - Computer Games Development
  - Multimedia Technology
  - Web Media Technology
  - Educational Technology
• Management Science
• Actuarial Studies
• Management Science
• Insurance

ROUTE A
• Business
  - Business Management
  - E-Business
  - International Business Management
  - Marketing
  - Human Resource Management
• Tourism Management
• Services Management
• Media Marketing
• Social Media
• Technopreneurship
• Media Informatics
• Accounting & Finance
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• Financial Planning
• Investment and Risk Management
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ROUTE B
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• Taxation
• Forex and Investments
• Banking & Finance
• Financial Planning
• Investment and Risk Management
• Islamic Banking & Finance

ROUTE C
• Engineering
  - Electrical & Electronic Engineering
  - Telecommunication Engineering
  - Mechatronic Engineering
  - Information Technology
  - Database Administration
  - Information Systems Security
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
  - Software Engineering
  - Internet Technology
  - Enterprise Computing
  - Computer Games Development
  - Multimedia Technology
  - Web Media Technology
  - Educational Technology
• Management Science
• Actuarial Studies
• Management Science
• Insurance
COMPUTING & IT PROGRAMMES

- Diploma in Information & Communications Technology
- Diploma in Information & Communications Technology with a specialization in Software Engineering
- Diploma in Business with Information Technology
- BSc (Hons) in Information Technology
- BSc (Hons) in Information Technology with a specialization in:
  - Information System Security
  - Database Administration
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
- BSc (Hons) in Software Engineering
- BSc (Hons) in Internet Technology
- BSc (Hons) in Enterprise Computing
- BSc (Hons) in Technopreneurship

INTERACTIVE ENTERTAINMENT TECHNOLOGY PROGRAMMES

- BSc (Hons) in Computer Games Development
- BSc (Hons) in Multimedia Technology
- BSc (Hons) in Web Media Technology
- BSc (Hons) in Web Media Technology with a specialization in Educational Technology
- BSc (Hons) in Media Informatics
- BA (Hons) in Media Marketing with a specialization in Social Media
Our Collaborative Partners:

The School of Computing & Technology at APU is the oldest and most established school. The school has a strong presence in the industry and is an obvious choice among the school leavers. The school offers a wide variety of specialised programmes. Our programmes are very much industry driven and relevant and our graduates are global citizens and industry ready. Alumni of the School have progressed into a number of significant careers in leading multinational technology based companies.

In line with APU’s vision, the School aims to be a leading provider of high quality computing and technology education and a contributor to research at the national and international level. This is emphasised by our mission to provide high quality and internationally recognised and benchmarked Technology education and to be recognised for innovative teaching methods and educational activities.
Computing & Technology Study Pathways

**DEGREE PROGRAMMES**

(DUAL Degrees awarded by APU & Staffordshire University, United Kingdom)

<table>
<thead>
<tr>
<th>COMMON SEMESTER 1/LEVEL 1</th>
<th>PROGRAMMES</th>
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<tbody>
<tr>
<td>Common Semester 1 in Degree Level 1*</td>
<td>• BSc (Hons) in Information Technology</td>
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<tr>
<td></td>
<td>• BSc (Hons) in Information Technology with a specialism in:</td>
</tr>
<tr>
<td></td>
<td>- Information System Security</td>
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<td></td>
<td>• BSc (Hons) in Enterprise Computing</td>
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</table>

| Specialised Level 1 | • BSc (Hons) in Technopreneurship |
| Specialised Level 1 | • BSc (Hons) in Computer Games Development |
| Specialised Level 1 | • BSc (Hons) in Multimedia Technology |
| Specialised Level 1 | • BSc (Hons) in Web Media Technology |
| Specialised Level 1 | • BSc (Hons) in Web Media Technology with a specialism in Educational Technology |

| Common Level 1* with BA (Hons) in Media Marketing | • BSc (Hons) in Media Informatics |
|                                                    | • BA (Hons) in Media Marketing with a specialism in Social Media |

Note: *Although Semester 1 at Level 1 is common for some programmes, students who are on scholarships or loans (e.g. PTPTN, MARA etc) are required to decide on your degree upon commencement and are not allowed to change to another programme unless approved by the Loan/Scholarship provider. International Students are required to re-apply for a new Student Pass (visa) should they decide to change the programme.*
# Diploma in Information & Communications Technology

**THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:**

- Coverage of the academic aspect as well as the vocational aspect of the wide area of Computing and Information and Communications Technology.
- Students with the skills to prepare them for careers in the ICT environment with emphasis on solutions design, software development and technology infrastructure support.
- Students with academic and professional skills to develop solutions requiring the application of technology in a business and organisational context, so as to facilitate response to continuous future changes in technology and industry practices.
- Students with critical, independent and cooperative learning skills so as to facilitate responses to continuous future changes in industry practices.
- Students with intellectual skills, communications ability and teamworking capability.
- Students with opportunities for progression into advanced programmes of study of International standard in relevant areas.

## SEMESTER 1

In this semester students will be equipped with basic mathematical, language and communication as well as information technology skills. Throughout the duration of this semester, students will have the opportunity to expose themselves to various terminologies and basic concepts related to technology and business managerial skills. These skills are imperative for a smooth transition to the following semester.

### Modules

- English for Academic Purposes
- Numerical Skills
- Managing Business
- Practical IT Skills

## SEMESTER 2

The modules Professional Communications, Academic Research Skills and Quantitative Methods that offered in this semester help to develop students’ knowledge and skills significantly with emphasis on aspects that are core to the study of business and technology. The module Information Systems provides students with details of the underpinning components of any information systems for more advanced study in subsequent semesters.

### Modules

- Professional Communications
- Academic Research Skills
- Information Systems
- Quantitative Methods

## SEMESTER 3

This semester moves students to advanced modules in information and communication technology related areas. Modules such as Internet Applications and Problem Solving & Program Design using C expand students’ knowledge and efficiency in solving problems and exposing them to the idea that there is no single solution to solving a problem.

### Modules

- Computer Technology
- Internet Applications
- Computer Systems Architecture
- Problem Solving & Program Design Using C

## SEMESTER 4

In this semester, students are exposed to more advanced concepts, skills, trends and issues in the areas of information and communication technology. The modules in this semester develop skills and capabilities in systems development and application areas which support the software development project in the final semester.

### Modules

- Database & Data Structure
- Multimedia Applications
- Numerical Methods & Logic
- Operating System
- System Analysis & Design

## SEMESTER 5

In the final semester, students are provided with more advanced programming skills in the Java Programming and V.B.Net modules and an insight into the different environments in which ICT solutions sit in the Telecommunications and Networks & Networking modules. The semester culminates in the Software Development Project which integrates skills, knowledge and understanding from the full programme.

### Modules

- Java Programming
- V.B.Net
- Telecommunication
- Networks & Networking
- Software Development Project

*In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

## FURTHER STUDIES

Upon successful completion of this programme, you will be eligible to progress into any of the following degree programmes offered at APU:

- BSc (Hons) in Information Technology
- BSc (Hons) in Information Technology with a specialism in:
  - Database Administration
  - Information Systems Security
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
- BSc (Hons) in Software Engineering
- BSc (Hons) in Internet Technology
- BSc (Hons) in Enterprise Computing

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15 SCHOOL OF COMPUTING & TECHNOLOGY
THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:

• Students with skills in software systems development, with emphasis on aspects of software engineering.
• Students with the skills to prepare them for careers in the ICT environment, with emphasis on solutions design, software development and technology infrastructure support.
• An appreciation of the proven principles and techniques for the development and support of software systems in commercial organisations.
• Students with critical, independent and cooperative learning skills so as to facilitate responses to continuous future changes in industry practices.
• Students with academic and professional skills to develop solutions requiring the application of technology in a business and organisational context, so as to respond to continuous future changes in technology and industry practices.
• Students with intellectual skills, communications ability and team working capability.
• Students with opportunities for progression into advanced programmes of study of International standard in relevant areas.

SEMESTER 1

In this semester students will be equipped with basic mathematical, language and communication as well as information technology skills. Throughout the duration of this semester, students will have the opportunity to expose themselves to various terminologies and basic concepts related to technology and business managerial skills. These skills are imperative for a smooth transition to the following semester.

SEMESTER 2

The modules Professional Communications, Academic Research Skills and Quantitative Methods that are offered in this semester will help to develop students’ knowledge and skills significantly with emphasis on aspects that are core to the study of business.

SEMESTER 3

This semester moves students to advanced modules in information and communication technology related areas. Modules such as Internet Applications and Problem Solving & Programme Design using C expand students’ knowledge and efficiency in solving problems and exposing them to the idea that there is no single solution to solving a problem.

SEMESTER 4

In this semester, students are exposed to more advanced concepts, skills, trends and issues in the areas of information and communication technology. The modules in this semester develop skills and capabilities in systems development and application areas which support the software development project in the final semester.

SEMESTER 5

In the final semester, students are provided with more advanced programming skills in the Java Programming and V.B.Net modules. Introduction to Software Engineering and Artificial Intelligence will bring an insight into the techniques used in the design of software and the building of knowledge based systems. The semester culminates in the Software Development Project which integrates skills, knowledge and understanding from the full programme.

FURTHER STUDIES

Upon successful completion of this programme, you will be eligible to progress into any of the following degree programmes offered at APU:

• BSc (Hons) in Information Technology
• BSc (Hons) in Information Technology with a specialism in:
  - Database Administration
  - Information Systems Security
  - Intelligent Systems
  - Network Computing
  - Forensic Computing
  - Mobile Technology
  - Business Information Systems
• BSc (Hons) in Software Engineering
• BSc (Hons) in Internet Technology
• BSc (Hons) in Enterprise Computing

*In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.
Upon successful completion of this programme, you will be eligible to progress into any of the following degree programmes offered at APU and APIIT:

**FURTHER STUDIES**

- BA (Hons) in Business Management
- BA (Hons) in Business Management with a specialism in E-Business
- BA (Hons) in International Business Management
- BSc (Hons) in Technopreneurship
- BSc (Hons) in Information Technology with a specialism in Business Information Systems
- BSc (Hons) in Business Information Technology
- BSc (Hons) in Business Computing

**THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:**

- Students for careers in hybrid environments where business information systems are increasingly integrated, encompassing a wide range of enabling technologies and cross-organisational, social, national and international boundaries.
- Students with academic and professional skills to develop solutions requiring the application of both business and information technology disciplines in a commercial and organisational context.
- Students with critical, independent and cooperative learning skills so as to facilitate responses to continuous future changes in technology and industry practices.
- Students with intellectual skills, communications ability and team working capability.

**SEMESTER 1**

In this semester students will be equipped with basic mathematical, language and communication as well as information technology skills. Throughout the duration of this semester, students will have the opportunity to expose themselves to various terminologies and basic concepts related to business managerial skills. These skills are imperative for a smooth transition to the following semester.

**Modules**

- English for Academic Purposes
- Numerical Skills
- Managing Business
- Practical IT Skills

**SEMESTER 2**

The modules Professional Communications, Academic Research Skills and Quantitative Methods that are offered in this semester help to develop students’ knowledge and skills significantly with emphasis on aspects that are core to the study of business. The module Information Systems provides students with details of the underpinning components of any information systems for more advanced study in subsequent semesters.

**Modules**

- Professional Communications
- Academic Research Skills
- Information Systems
- Quantitative Methods

**SEMESTER 3**

This semester moves the students from the basic business concepts and procedures to more advanced topics like Marketing and Business Economics. There are also modules in related subjects such as Computer Technology and Internet Applications which will expand their knowledge and efficiency in solving problems and making decisions in different areas of business, supported by technology.

**Modules**

- Computer Technology
- Internet Applications
- Marketing
- Business Economics

**SEMESTER 4**

The modules in this semester aimed at equipping students with the knowledge and skills in the legal, statistical and accounting aspects of business. In addition, students are exposed to the Multimedia Application where students will learn the fundamental knowledge and skills necessary to create and document an interactive multimedia application.

**Modules**

- Legal Framework of Business
- Multimedia Applications
- Business Statistics
- Accounting
- System Analysis & Design

**SEMESTER 5**

The final semester allows students to progress into more advanced areas of business, management together with computing and Information Technology skills which includes programming knowledge and Networks & Networking. Graduates will be able to demonstrate a range of cognitive and intellectual skills together with techniques specific to business, management and information Technology.

**Modules**

- Organisational Behaviour
- Managing Services
- Managing Information Systems
- VB.Net
- Networks & Networking

*In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.*
LEVEL 1

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

Common Modules
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

Specialised Modules
- Introduction To C Programming
- Interactive Media & Web Design Technology

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

LEVEL 2

Further in-depth analysis and design skills are developed at Level 2 through System Development Methods, Web Applications, and Human-Computer Interaction. Specific computing skills are developed through Object Oriented Development with Java, Programming Concepts in C++, and System Programming & Computer Control. Integrated Business Processes with SAP ERP Systems will give you a thorough understanding of how IT supports modern organisational activity. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

Common Modules
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods for Computing and Technology
- System Development Methods

Specialised Modules
- Human-Computer Interaction
- Integrated Business Processes with SAP ERP Systems
- Mobile & Wireless Technology
- Programming Concepts in C++
- Web Applications
- System Programming and Computer Control

LEVEL 3

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Advanced Database Systems, Computer Systems Management and Cloud Infrastructure and Services ensure that you have a proper understanding of modern computing environments, while Enterprise Programming for Distributed Applications and Designing and Developing Applications on Cloud develop advanced computing skills. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

Common Modules
- Innovation Management & New Product Development
- Project Management

Specialised Modules
- Advanced Database Systems
- Cloud Infrastructure & Services
- Computer Systems Management
- Designing & Developing Applications on Cloud
- Distributed Computer Systems
- Enterprise Programming for Distributed Applications
- Entrepreneurship
- Information Technology Project
- Investigations in Information Technology

BSc (Hons) in Information Technology

- Familiarity with a broad range of information technologies and how they are used.
- An understanding of frameworks and planning techniques for the strategic management of information systems in organisations.
- The ability to critically evaluate and apply appropriate strategies and techniques to the development of information technologies.
# BSc (Hons) in Information Technology with a specialism in Information System Security

**LEVEL 1**

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. Technical knowledge and skills essential in this field of specialisation are introduced in Operating Systems & Computer Architecture, Introduction to Networking, and Introduction to Security and Forensic Technologies. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

### Common Modules
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

### Specialised Modules
- Introduction to C Programming
- Introduction to Security and Forensic Technologies

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

**LEVEL 2**

Specific skills related to Information Systems Security are enhanced at this level through the Network Security, Ethical Hacking and Incidence Response, Principles of Networks and Network Design, and Mobile & Wireless Technology modules. Your analysis and design skills are developed with System Development Methods, while your programming skills are sharpened with Object Oriented Development with Java and System Programming & Computer Control. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

### Common Modules
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods for Computing and Technology
- System Development Methods

### Specialised Modules
- Ethical Hacking and Incidence Response
- Fundamentals of Mobile Computing
- Mobile & Wireless Technology
- Network Security
- Principles of Networks and Network Design
- System Programming and Computer Control

**LEVEL 3**

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Specific information systems security environments are covered by the Computer Systems Security, Wireless and Mobile Security, and Voice Over IP Security modules. Malicious Software and Security Programming, Design of Corporate Communications Systems, Penetration Testing, and Critical Issues in Managing IS in Organisations provide a thorough understanding of how information systems security supports modern organisational activity. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

### Common Modules
- Innovation Management & New Product Development
- Project Management

### Specialised Modules
- Computer Systems Security
- Critical Issues in Managing IS in Organisations
- Design of Corporate Communications Systems
- Information Systems Security Project
- Investigations in Information Systems Security
- Malicious Software and Security Programming
- Penetration Testing
- Voice Over IP Security
- Wireless and Mobile Security

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Note: The specialism will appear only in the academic transcript.
LEVEL 1

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. This specialism is introduced with Introduction to Databases. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

Common Modules
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

Specialised Modules
- Introduction To C Programming
- Introduction to Security and Forensic Technologies

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

LEVEL 2

Further in-depth analysis and design skills are developed at Level 2 through System Development Methods, Web Applications, and Database Design & Development. Specific computing skills are developed through Object Oriented Development with Java, Programming Concepts in C++, and System Programming & Computer Control. Integrated Business Processes with SAP ERP Systems and Data Management will give you a thorough understanding of how IT supports modern organisational activity. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

Common Modules
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods for Computing and Technology
- System Development Methods

Specialised Modules
- Data Management
- Database Design & Development
- Integrated Business Processes with SAP ERP Systems
- Programming Concepts in C++
- System Programming and Computer Control
- Web Applications

LEVEL 3

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Knowledge Discovery & Big Data Analytics and Enterprise Programming for Distributed Applications give you the advanced computing skills required to take advantage of enterprise databases. Cloud Infrastructure and Services, Information Storage and Management, Database Administration, Computer Systems Security, and Database Security ensure that you have the technical skills necessary to evaluate, design, configure, and maintain the data management infrastructure.

Common Modules
- Innovation Management & New Product Development
- Project Management

Specialised Modules
- Cloud Infrastructure & Services
- Computer Systems Security
- Database Administration
- Database Security
- Database Administration Project
- Enterprise Programming for Distributed Applications
- Information Storage and Management
- Investigations in Database Administration
- Knowledge Discovery & Big Data Analytics

Note: The specialism will appear only in the academic transcript.
THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:

- Familiarity with a broad range of information technologies and how they are used.
- A specialised and focused emphasis on the theory and application of artificial intelligence.
- The ability to critically evaluate and apply techniques such as pattern matching and neural networks to real-world problems.

LEVEL 1

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. The core topic in this specialism is introduced through Introduction to Artificial Intelligence. Modules such as Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

Common Modules
• Computing & IT in the Workplace
• Fundamentals of Software Development
• Introduction to Databases
• Introduction to Management
• Introduction to Networking
• Mathematical Concepts for Computing
• Operating Systems & Computer Architecture
• System Analysis & Design

Specialised Modules
• Introduction to C Programming
• Introduction to Artificial Intelligence

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

LEVEL 2

Specific skills related to Intelligent Systems are developed at Level 2 with AI Methods, System Programming and Computer Control, Probability & Statistical Modelling, and Imaging & Special Effects. These all assist in the implementation of Intelligent Systems, and provide a foundation for further knowledge and skills to be acquired at the next level. Your analysis and design skills are developed with System Development Methods, while your programming skills are sharpened with Object Oriented Development with Java and Programming Concepts in C++. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

Common Modules
• Creativity & Innovation
• Object Oriented Development with Java
• Probability & Statistical Modeling
• Professional & Enterprise Development
• Research Methods for Computing and Technology
• System Development Methods

Specialised Modules
• AI Methods
• Data Structures
• Human-Computer Interaction
• Imaging & Special Effects
• Programming Concepts in C++
• System Programming and Computer Control

LEVEL 3

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Cognitive Science, Further Artificial Intelligence, Knowledge Discovery, and Image Processing build on knowledge and skills acquired at the lower levels to provide an in-depth understanding of techniques at the heart of intelligent systems. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products. Critical Issues in Managing IS in Organisations and Entrepreneurship ensure that you have a proper understanding and appreciation of relevant issues whether you choose to join an existing organisation or decide to set up your own business.

Common Modules
• Innovation Management & New Product Development
• Project Management

Specialised Modules
• Advance Programming Language Concepts
• Cognitive Science
• Critical Issues in Managing IS in Organisations
• Entrepreneurship
• Further Artificial Intelligence
• Image Processing, Computer Vision & Pattern Recognition
• Intelligent Systems Project
• Investigations in Intelligent Systems
• Knowledge Discovery & Big Data Analytics
LEVEL 1

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. Technical knowledge and skills essential in this field of specialisation are introduced in Operating Systems & Computer Architecture, Introduction to Networking, and Introduction to Security and Forensic Technologies. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

Common Modules
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

Specialised Modules
- Introduction to C Programming
- Introduction to Security and Forensic Technologies

LEVEL 2

Specific skills related to Network Computing are enhanced at this level through the Network Security, Switching Technologies, Principles of Network Design, Mobile & Wireless Technology modules. Your analysis and design skills are developed with System Development Methods, while your programming skills are sharpened with Object Oriented Development with Java and System Programming & Computer Control. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

Common Modules
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods For Computing and Technology
- System Development Methods

Specialised Modules
- Mobile & Wireless Technology
- Network Security
- Principles of Networks and Network Design
- Switching Technologies
- System & Network Administration
- System Programming and Computer Control

LEVEL 3

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Advanced Wireless Technology, Distributed Computer Systems, Ubiquitous Computing, Computer Systems Security, and Network Troubleshooting build on knowledge and skills acquired at the lower levels to provide an in depth understanding of network computing techniques. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products. Critical Issues in Managing IS in Organisations and Entrepreneurship ensure that you have a proper understanding and appreciation of relevant issues whether you choose to join an existing organisation or decide to set up your own business.

Common Modules
- Innovation Management & New Product Development
- Project Management

Specialised Modules
- Advanced Wireless Technology
- Computer Systems Security
- Critical Issues in Managing IS in Organisations
- Distributed Computer Systems
- Entrepreneurship
- Investigations in Network Computing
- Network Computing Project
- Network Troubleshooting
- Ubiquitous Computing

Note: The specialism will appear only in the academic transcript.
**LEVEL 1**

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. Technical knowledge and skills essential in this field of specialisation are introduced in Operating Systems & Computer Architecture, Introduction to Networking, and Introduction to Security and Forensic Technologies. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

**Common Modules**
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

**Specialised Modules**
- Introduction to C Programming
- Introduction to Security and Forensic Technologies

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

**LEVEL 2**

Specific skills related to Forensic Computing are enhanced at this level through the Computer Systems and Low Level Techniques, Data Recovery, Tracing and Evidence Gathering, Intellectual Property, Ethics & Legal Issues, and Ethical Hacking & Incidence Response modules. Your analysis and design skills are developed with System Development Methods, while your programming skills are sharpened with Object Oriented Development with Java, Programming Concepts in C++, and System Programming & Computer Control. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

**Common Modules**
- Creativity & Innovation
- Object Oriented Development with Java
- Professional & Enterprise Development
- Probability & Statistical Modeling
- Research Methods for Computing and Technology
- System Development Methods

**Specialised Modules**
- Computer Systems and Low Level Techniques
- Data Recovery, Tracing and Evidence Gathering
- Ethical Hacking and Incidence Response
- Intellectual Property, Ethics & Legal Issues
- Programming Concepts in C++
- System Programming and Computer Control

**LEVEL 3**

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Specific forensic computing topics are covered by the Malicious Software and Security Programming, Digital Evidence, and Legal & Evidentiary Aspects of Forensic Computing modules. Computer Systems Security, Design of Corporate Communications Systems, and Computer Systems Management provide a thorough understanding of how forensic computing fits into information systems security initiatives to support modern organisational activity. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

**Common Modules**
- Innovation Management & New Product Development
- Project Management

**Specialised Modules**
- Computer Systems Management
- Computer Systems Security
- Design of Corporate Communications Systems
- Digital Evidence
- Entrepreneurship
- Forensic Computing Project
- Investigations in Forensic Computing
- Legal & Evidentiary Aspects of Forensic Computing
- Malicious Software and Security Programming

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**BSc (Hons) in Information Technology with a specialism in Forensic Computing**

- Familiarity with a broad range of information technologies and how they are used.
- Strengthened low-level computer systems knowledge and application skills that enable you to detect computer crime.
- In-depth understanding of techniques that lead to successful prosecution of computer-related criminal activity or abuse.

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**Note:** The specialism will appear only in the academic transcript.
BSc (Hons) in Information Technology with a specialism in Mobile Technology

**THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:**

- Familiarity with a broad range of information technologies and how they are used.
- The ability to specify and manage the implementation of a range of mobile communications systems to support various activities.
- The ability to design, develop, and implement viable mobile technology solutions using appropriate platforms, tools, and techniques.

**LEVEL 1**

The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. Introduction to Management and Computing & IT in the Workplace provide a foundation for multidisciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

**Common Modules**
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

**Specialised Modules**
- Interactive Media & Web Design Technology
- Introduction to Object-Oriented Programming

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfil credit requirements for Co-Curricular Activities.

**LEVEL 2**

Further in-depth analysis and design skills are developed here through System Development Methods, Web Applications, and Computer Games Design. Specific computing skills are developed in Object Oriented Development with Java, Programming Concepts in C++, and System Programming & Computer Control. Specific technical knowledge and skills related to Mobile Technology are enhanced at this level through the Fundamentals of Mobile Computing and Mobile & Wireless Technology modules. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

**Common Modules**
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods for Computing and Technology
- System Development Methods

**Specialised Modules**
- Computer Games Design: High Concept and Preproduction
- Fundamentals of Mobile Computing
- Mobile & Wireless Technology
- Programming Concepts in C++
- System Programming and Computer Control
- Web Applications

**LEVEL 3**

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Specific skills in the area of Mobile Technology are developed through Software Development for Mobile Devices, Mobile & Web Multimedia, Mobile Multimedia & Gaming, Advanced Wireless Technology, and Enterprise Programming for Distributed Applications. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

**Common Modules**
- Innovation Management & New Product Development
- Project Management

**Specialised Modules**
- Advanced Wireless Technology
- Critical Issues in Managing IS in Organisations
- Distributed Computer Systems
- Enterprise Programming for Distributed Applications
- Investigations in Mobile Technology
- Mobile Multimedia & Gaming
- Mobile Technology Project
- Software Development for Mobile Devices
- XML & Web Services

**Note:** The specialism will appear only in the academic transcript.
The IT degree and all of its specialisms have similar modules in Level 1. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. Introduction to Management and Computing & IT in the Workplace provide a foundation for multidisciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

Further in-depth analysis and design skills are developed at Level 2 with System Development Methods and Human-Computer Interaction, while Object Oriented Development with Java sharpens your programming skills. The E-Commerce, E-Business, Enterprise Systems, and Integrated Business Processes with SAP ERP Systems modules give you a complete understanding of how Business Information Systems support modern organisational activity. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. An IT professional in this field must have a proper understanding and appreciation of issues related to the development, deployment, and business impact of information systems. This is developed and enhanced through Information Systems Development Trends, Computer Systems Management, E-Business Strategy, Building Customer Relationships, and Developing E-Commerce Applications. General personal and professional development is enhanced in Project Management; while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

Common Modules
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

Specialised Modules
- Interactive Media & Web Design Technology
- Introduction to Object-Oriented Programming

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfil credit requirements for Co-Curricular Activities.

Common Modules
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods For Computing and Technology
- System Development Methods

Specialised Modules
- E-Business
- E-Commerce
- Enterprise Systems
- Human-Computer Interaction
- Integrated Business Processes with SAP ERP Systems
- Web Applications

Common Modules
- Innovation Management & New Product Development
- Project Management

Specialised Modules
- Building Customer Relationships
- Business Information Systems Project
- Computer Systems Management
- Developing E-Commerce Applications with XML
- E-Business Strategy
- Entrepreneurship
- Information Systems Development Trends
- Investigations in Business Information Systems
- Knowledge Discovery & Big Data Analytics

Note: The specialism will appear only in the academic transcript.
## LEVEL 1

Level 1 modules in this program that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. Introduction to Artificial Intelligence is the first specialised module related to Software Engineering. Modules such as Introduction to Management, Computing & IT in the Workplace and Professional & Enterprise Development provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout the program.

### Common Modules
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

### Specialised Modules
- Introduction to Artificial Intelligence
- Introduction to Object Oriented Programming

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

## LEVEL 2

Specific technical skills related to Software Engineering are developed at this level. Requirements Engineering covers principles, practical skills, for the software lifecycle, and the methodologies and tools for specification, design, development, testing, evaluation, and maintenance of software systems. In Software Architecture you will have an opportunity to analyse applications in terms of their scope, style, and dynamism as well as to work in a group to develop a software system using middleware technologies. System Programming and Computer Control offers an introduction to the concepts associated with data acquisition that are the key to computer automation. The emphasis on independent learning continues at this level, and is a particular focus and requirement in Research Methods.

### Common Modules
- Creativity & Innovation
- Object Oriented Development with Java
- Professional & Enterprise Development
- Research Methods For Computing and Technology
- System Development Methods

### Specialised Modules
- AI Methods
- Data Structures
- Design Methods
- Programming Concepts in C++
- Requirements Engineering
- Software Architecture
- System Programming and Computer Control

## LEVEL 3

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. In Design Patterns you will be exposed to methods for object-oriented systems development that improve software design, organisation, and maintainability. In Software Quality Engineering you will learn to devise, describe, evaluate, and apply various software metrics. Advanced Programming Language Concepts offers an overview of programming language paradigms, with a focus on languages can be used to write extremely concise and powerful applications and those that are tuned to queries of a set of facts and rules. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

### Common Modules
- Innovation Management & New Product Development
- Project Management

### Specialised Modules
- Advanced Programming Language Concepts
- Advanced Database Systems
- Algorithmics
- Cloud Infrastructure & Services
- Design Patterns
- Designing & Developing Applications on Cloud
- Investigations in Software Engineering
- Software Engineering Project
- Software Quality Engineering

### THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:

- Familiarity with the tools and rigorous methodologies used to develop mission-critical and safety-critical software systems.
- The ability to critically evaluate design paradigms, languages, algorithms, and techniques used to develop large-scale and complex software systems.
- A deep appreciation of the importance of software architecture, testing, documentation, and maintainability.

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BSc (Hons) in Software Engineering

This programme specifically designed to provide:

- Familiarity with the tools and rigorous methodologies used to develop mission-critical and safety-critical software systems.
- The ability to critically evaluate design paradigms, languages, algorithms, and techniques used to develop large-scale and complex software systems.
- A deep appreciation of the importance of software architecture, testing, documentation, and maintainability.
BSc (Hons) in Internet Technology

**LEVEL 1**

Level 1 modules in this degree that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

**LEVEL 2**

Specific technical skills related to Internet Technology are developed at this level. Fundamentals of Mobile Computing and Mobile & Wireless Technology provide indepth skills and a thorough understanding of how mobile technology supports modern lifestyles and organisational activity. Web Applications and Web Multimedia show you how to take full advantage of the technologies and components used to develop web-based multimedia applications. Network Security introduces you to the security needs of an organisation and covers the most popular countermeasures used to deter malicious attacks, along with risk assessment and mitigation strategies. The emphasis on independent learning continues at this level, and is a particular focus and requirement in Research Methods.

**LEVEL 3**

At this level there is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Enterprise Programming for Distributed Applications, Cloud Infrastructure and Services, and Developing E-Commerce Applications with XML provide in depth skills and a thorough understanding of how Internet Technology supports modern organisational activity. Innovation Management & New Product Development, Emergent Technology and Ubiquitous Computing give you the opportunity to enhance your research skills and generate viable technical ideas based on the latest technology innovations. Computer Systems Management and Entrepreneurship ensure that you have a proper understanding and appreciation of relevant issues whether you choose to join an existing organisation or decide to set up your own business.

**Common Modules**
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- Introduction to Networking
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- System Analysis & Design

**Specialised Modules**
- Interactive Media & Web Design Technology
- Introduction to Object-Oriented Programming

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

**Common Modules**
- Creativity & Innovation
- Object Oriented Development with Java
- Probability & Statistical Modeling
- Professional & Enterprise Development
- Research Methods For Computing and Technology
- System Development Methods

**Specialised Modules**
- E-Commerce
- Fundamentals of Mobile Computing
- Mobile & Wireless Technology
- Network Security
- Web Applications
- Web Multimedia

**Common Modules**
- Innovation Management & New Product Development
- Project Management

**Specialised Modules**
- Cloud Infrastructure & Services
- Computer Systems Management
- Developing E-Commerce Applications with XML
- Emergent Technology
- Enterprise Programming for Distributed Applications
- Entrepreneurship
- Internet Technology Project
- Investigations in Internet Technology
- Ubiquitous Computing

**Familiarity with the full range of technologies that characterise the Internet from an applications perspective.**

**A coherent knowledge and understanding of application design and development for internet-based systems.**

**The ability to create and critically evaluate innovative new applications of internet technologies.**
LEVEL 1

Level 1 modules in this degree that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. More technical knowledge and skills are developed in Operating Systems & Computer Architecture and Introduction to Networking. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. Important and relevant skills for independent learning are introduced throughout this level.

Common Modules
• Computing & IT in the Workplace
• Fundamentals of Software Development
• Introduction to Databases
• Introduction to Management
• Introduction to Networking
• Mathematical Concepts for Computing
• Operating Systems & Computer Architecture
• System Analysis & Design

Specialised Modules
• Interactive Media & Web Design Technology
• Introduction to Object-Oriented Programming

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfil credit requirements for Co-Curricular Activities.

LEVEL 2

Specific technical skills related to Enterprise Computing are developed at this level. Enterprise Systems, Web Applications, and Integrated Business Processes provide an overview of the information technology that supports a modern business, while Mobile & Wireless Technology and Systems & Network Administration give you hands-on experience with setting up and configuring them. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of Creativity & Innovation and Research Methods for Computing & Technology.

Common Modules
• Computing & IT in the Workplace
• Fundamentals of Software Development
• Introduction to Databases
• Introduction to Management
• Introduction to Networking
• Mathematical Concepts for Computing
• Operating Systems & Computer Architecture
• System Analysis & Design

Specialised Modules
• Interactive Media & Web Design Technology
• Introduction to Object-Oriented Programming

LEVEL 3

The focus at this level is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Computer Systems Management and Cloud Infrastructure and Services ensure that you have a proper understanding of modern computing environments. Enterprise Programming for Distributed Applications and Designing and Developing Applications on Cloud develop advanced computing skills. Advanced Database Systems and Information Storage and Management give you experience with critical support technologies for Enterprise Computing. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.

Common Modules
• Innovation Management & New Product Development
• Project Management

Specialised Modules
• Cloud Infrastructure & Services
• Computer Systems Management
• Database Administration
• Design for Quality
• Designing & Developing Applications on Cloud
• Enterprise Computing Project
• Information Storage & Management
• Investigations in Enterprise Computing
• XML & Web Services
### LEVEL 1

Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming in an appropriate language. Computing & IT in the Workplace and Interactive Media & Web Design Technology provide a foundation for understanding technical innovation. Business modules, including Introduction to Management, Accounting Skills, and Marketing help you understand the context, nature, role, and significance of management and finance that underpin the development of your entrepreneurial capabilities. Important and relevant skills for independent learning are introduced throughout this level.

**Common Modules**
- Computing & IT in the Workplace
- Fundamentals of Software Development
- Introduction to Databases
- Introduction to Management
- System Analysis & Design

**Specialised Modules**
- Accounting Skills
- Interactive Media & Web Design Technology
- Introduction to Visual Programming
- Marketing
- Quantitative Skills

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

### LEVEL 2

The combination of modules at Level 2 is designed to provide you with a strong grounding in three areas: business, business information systems, and multimedia. Marketing Intelligence and Research, Managing Finances, and Fundamentals of Technopreneurship cover the business areas of identifying trends in customer demand and formulating workable business plans to meet them in innovative ways. E-Commerce and Integrated Business Processes with SAP ERP Systems focus on using information technology to support business operations. Web Applications, Multimedia Applications, and Multimedia for Presenting and Promoting introduce a range of techniques and components for the development of practical interactive multimedia systems. Independent learning continues in all modules, but is a particular focus of Research Methods for Computing & Technology.

**Common Modules**
- Creativity & Innovation
- Professional & Enterprise Development
- Research Methods For Computing and Technology
- System Development Methods

**Specialised Modules**
- E-Commerce
- Fundamentals of Technopreneurship
- Integrated Business Processes with SAP ERP Systems
- Managing Finances
- Marketing Intelligence and Research
- Multimedia Applications
- Multimedia for Presenting and Promoting
- Web Applications

### LEVEL 3

The focus at this level is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Enterprise Management, Managing People and Performance, and Critical Issues in Managing IS continue enhancing your capacity for informed critical understanding of business trends and management techniques, while Advanced Multimedia and Mobile & Web Multimedia skills do the same for your technical skills. Innovation Management & New Product Development, Emergent Technology and Information Systems Development Trends focus on generating viable ideas based on the latest innovations and successfully making them a reality in a cost-effective manner.

**Common Modules**
- Innovation Management & New Product Development
- Project Management

**Specialised Modules**
- Advanced Multimedia
- Critical Issues in Managing IS in Organisations
- Emergent Technology
- Enterprise Management
- Information Systems Development Trends
- Investigations in Technopreneurship
- Managing People and Performance
- Mobile & Web Multimedia
- Technopreneurship Project
The focus of this degree is the technical aspects of designing and developing interactive computer games - there is little emphasis on ‘creative’ design elements. Modules that provide a foundation for any IT professional include System Analysis & Design, Fundamentals of Software Development, and Introduction to Programming. Introduction to Management and Computing & IT in the Workplace provide a foundation for multi-disciplinary education and understanding personal and organisational development. The specialised modules cover the essentials of computer game logic design and interaction of game elements. Important and relevant skills for independent learning are introduced throughout this level.

Further in-depth games analysis and design skills are developed at Level 2 with Analogue Games and Believable Models, while the two Games Design modules take you through the complete production lifecycle. Basic 3D Computer Character Modelling and Imaging & Special Effects introduce the context of digital representation and manipulation that is the foundation for animation. In Computer Graphics you will be introduced to APIs that implement graphical transformation algorithms. Animation and digital image manipulation are key areas of study at Level 3. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Advanced techniques for computer graphics and animation are built on the skills acquired at previous levels, and audio for computer games is introduced. HCI and Usability and Mobile Multimedia & Gaming present approaches to designing and evaluating applications with an emphasis on the user perspective. General personal and professional development is enhanced in Project Management, while Innovation Management & New Product Development continues the theme of generating new ideas and creating new products.
The BSc (Hons) in Multimedia Technology provides a comprehensive education in multimedia concepts, principles, and technologies. It is specifically designed to provide:

- In-depth knowledge of multimedia concepts, principles, and technologies.
- The knowledge and skills required to work in the multimedia industry as an author, animator, or modeller.
- The specific skills required to create 3D models and animation, digital music, video, and similar creative assets.

**LEVEL 1**

Specialised modules at Level 1 in this program that provide appropriate foundation for a technical professional in the field of Multimedia Technology include Interactive Media & Web Design Technology, Audio Visual Technology, Introduction to Graphics & Basic 3D Applications, and Digital Image Production. System Analysis & Design and Introduction to Programming in an appropriate language are skills needed by every IT professional. General understanding of the work environment and aspects of personal and organisational development are provided by Computing & IT in the Workplace and Introduction to Management. Important and relevant skills for independent learning are introduced.

**LEVEL 2**

Specific technical skills related to Multimedia Technology are developed at this level. Multimedia Applications, Web Multimedia, and Developing Interactive Multimedia introduce a range of techniques and components, along with a technical framework and guidelines for the development of practical interactive multimedia systems. Computer Graphics introduces you to APIs that implement algorithms for digital representation and manipulation of images. Animation is introduced in Icon & Time Based Multimedia and Basic 3D Computer Character Modelling, while sound is covered in Synthesiser Technology and Digital Audio & Video. Independent learning continues in all modules, but is a particular focus of Research Methods for Computing & Technology.

**LEVEL 3**

At this level there is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. In Multimedia Streaming you will master media streaming technology and develop synchronised media integration language (SMIL) programming skills along with project management skills. In Multimedia Scripting you will explore frameworks for selecting methods and tools and develop an understanding of current trends in multimedia development and its techniques. Advanced Multimedia, Advanced Web Multimedia, and Advanced 3D Character Modelling and Animation build on their Level 2 counterparts to provide in depth knowledge of issues and techniques.
LEVEL 1

Specialised modules at Level 1 that provide appropriate foundation for a technical professional in the field of Web Media Technology include Interactive Media & Web Design Technology, Audio Visual Technology, Introduction to Graphics & Basic 3D Applications, Digital Image Production, and Introduction to Interactive Scripting. System Analysis & Design and Introduction to Databases are skills needed by IT professionals in general. Understanding of the work environment and aspects of personal and organisational development are provided by Computing & IT in the Workplace and Introduction to Management. Important and relevant skills for independent learning are introduced throughout this level.

LEVEL 2

Understanding the elements of Web Media Technology and the requirements and options for designing and implementing web media is the focus at this level. Specific technical skills are developed through Principles of Creative Animations and Developing Interactive Multimedia. Application design and implementation is covered in depth with Web Applications, Web Multimedia, and Multimedia for Presenting and Promoting. Familiarity with the business environment for web media applications is provided by Managing Business, E-Commerce, and Intellectual Property, Ethics & Legal Issues. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods for Computing & Technology modules.

LEVEL 3

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Advanced Web Multimedia and Mobile & Web Multimedia build on Level 2 counterparts to provide in depth knowledge of tools and techniques, and are complemented by an introduction to a range of visualisation, simulation, and virtual reality techniques and software. In Multimedia Streaming you will master media streaming technology and develop synchronised media integration language (SMIL) programming skills along with project management skills. XML & Web Services, Entrepreneurship, and Innovation Management & New Product Development provide enhanced understanding of the business environment for web media applications.

BSc (Hons) in Web Media Technology

- Requisite skills and knowledge in the concepts, principles, and technologies of multimedia over the World Wide Web.
- The specific skills required to create 2D and 3D models, digital music, video, and related creative assets.
- The ability to manipulate digital creative asset formats and use those that are most appropriate for Web delivery systems.
BSc (Hons) in Web Media Technology with a specialism in Educational Technology

- Requisite skills and knowledge in the concepts, principles, and technologies of multimedia over the World Wide Web.
- Specific skills and knowledge in instructional design and critical evaluation of teaching and learning strategies.
- The ability to design, develop, and critically evaluate digital learning materials and virtual learning environments.

**LEVEL 1**

Specialised modules at Level 1 that provide appropriate foundation for a technical professional in the field of Web Media Technology include Interactive Media & Web Design Technology, Audio Visual Technology, Introduction to Graphics & Basic 3D Applications, Digital Image Production, and Introduction to Interactive Scripting. System Analysis & Design and Introduction to Databases are skills needed by IT professionals in general. Understanding of the work environment and aspects of personal and organisational development are provided by Computing & IT in the Workplace and Introduction to Management. Important and relevant skills for independent learning are introduced throughout this level.

**LEVEL 2**

Effective design of learning systems requires knowledge of learning theories and techniques together with an ability to analyse and design educational products. The specialised modules Instructional Design and IT for Learning give you an understanding of the theory of developing instructional material, apply knowledge of instructional design, learning theories, learning strategies and HCI to the development of a computer assisted learning package, and test its effectiveness in learning environment. Useful technical skills are developed through Web Applications, Web Multimedia, Developing Interactive Multimedia, and Principles of Creative Animations.

**LEVEL 3**

The focus of Level 3 is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Learning Technology through Project-based Learning and Interactive Learning Systems provide an in depth understanding of instructional design and teaching and learning strategies, and how to translate theory into practice through the design, development and evaluation of learning technologies. Advanced Multimedia and Advanced Web Multimedia build on Level 2 counterparts to provide in depth knowledge of tools and techniques, and are complemented by an introduction to a range of visualisation, simulation, and virtual reality techniques and software. Entrepreneurship and Innovation Management & New Product Development provide enhanced understanding of the business environment for web media applications.

Note: The specialism will appear only in the academic transcript.
Level 1

Level 1 is common to both the BA (Hons) in Media Marketing and the BSc (Hons) in Media Informatics, and is designed to make an informed choice between these two degrees at Level 2. This level introduces you to new media aspects of business, communication, and multimedia. Skills relevant to the general environment of business and IT are introduced, along with important and relevant skills for independent learning.

Compared with the BA (Hons) in Media Marketing there is a greater emphasis on multimedia techniques and tools. You will learn essential aspects of marketing communications, with a particular emphasis on writing and the use of modern media for communications and promoting. Along with independent learning, a common theme in all APU ICT awards is fostering creativity and innovation in individuals and teams. These themes are the specific focus of the Creativity & Innovation and Research Methods modules.

Common Modules with BA (Hons) in Media Marketing and BA (Hons) in Media Marketing with a specialism in Social Media

- Audio Visual Technology
- Business and Communications Skills
- Computing and IT in the Workplace
- Digital Image Production
- Interactive Media and Web Design Technology
- Introduction to Management
- Introduction to Theories of Media and Culture
- Marketing
- Mass Media to Multimedia
- Understanding the Press

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfil credit requirements for Co-Curricular Activities.

Common Modules

- Advertising
- B2B Marketing
- Multimedia for Presenting and Promoting
- New Creative Media Industries
- Public Relations
- Research Methods
- Script Writing for Radio & TV

Specialised Modules

- Creativity & Innovation
- Developing Interactive Multimedia
- Icon and Time Based Multimedia
- Professional & Enterprise Development
- Visual Communication

Level 2

At this level there is further development of relevant technical skills and the ability to apply these skills with strong critical thinking and analysis. Specialised modules in multimedia, animation, and usability give you in depth understanding of the technologies as well as the requirements and options for design and implementation. Alongside this you will gain further understanding of the nature of media and marketing communications, and the practical uses and problems of multimedia.

Common Modules

- Audiences, Consumption and Technology
- Copywriting
- Integrated Marketing Communications
- Media, Ethics and Politics
- Strategic Marketing Planning
- Video Recording & Production

Specialised Modules

- Advanced Multimedia
- HCI and Usability
- Investigations in Media Informatics
- Media Informatics Project
- Multimedia Techniques For Animation, Games & Film Effects

Level 3

BSc (Hons) in Media Informatics

- The skills and abilities required to develop effective interactive multimedia applications.
- A thorough understanding of issues in the areas of user interface design and human-computer interaction.
- An understanding of the nature of mass media, multimedia, and marketing communications.

Common Modules

- Advertising
- B2B Marketing
- Multimedia for Presenting and Promoting
- New Creative Media Industries
- Public Relations
- Research Methods
- Script Writing for Radio & TV

Specialised Modules

- Advanced Multimedia
- HCI and Usability
- Investigations in Media Informatics
- Media Informatics Project
- Multimedia Techniques For Animation, Games & Film Effects

THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:

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THIS PROGRAMME IS SPECIFICALLY DESIGNED TO PROVIDE:

- A thorough understanding of the issues relating to effective human computer interaction.
- A clear appreciation of the user interface and the skills to develop interactive multimedia applications.
- An opportunity to undertake a major project where the acquired knowledge and research skills will be used to explore an aspect of Social Media with a business context.

LEVEL 1

Level 1 is common to both Media awards and is designed to enable you to make an informed choice between these alternatives at Level 2. This Level introduces you to new media, aspects of Management & Marketing and Multimedia. The skills relevant for business and IT in the workplace are also covered. Important and relevant skills for independent learning are introduced.

The three areas of focus at this level are Media, Marketing Communications and Social Media. You will also develop awareness and skills in dealing effectively with customers. All the modules address one or more aspects of these areas. Independent learning continues in all modules but is a particular focus and requirement in Research Methods.

LEVEL 2

The three areas of focus continue with a greater emphasis on strategy and integration. Alongside these are modules which develop specific skills in multimedia and social networking. You also learn about the planning, decision-making, global & entrepreneurship aspects of marketing and the entertainment industry.

The Media Marketing with Social Media Project develops the academic and practical aspects of your chosen areas of study and reinforces your independent learning skills.

There is a further emphasis of Social Media with the introduction of the Social Media Project module which inculcates students with analytical and problem solving ability in meeting many different situations that require solutions on the use of new emerging media for marketing purpose and brand building.

BA (Hons) in Media Marketing with a specialism in Social Media

Common Modules with BA (Hons) in Media Marketing and BSc (Hons) in Media Informatics
- Audio Visual Technology
- Business and Communications Skills
- Computing and IT in the Workplace
- Digital Image Production
- Interactive Media and Web Design Technology
- Introduction to Management
- Introduction to Theories of Media and Culture
- Marketing
- Mass Media to Multimedia
- Understanding the Press

In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfil credit requirements for Co-Curricular Activities.

Common Modules
- Advertising
- Media Culture and Society
- New Creative Media Industries
- Public Relations
- Research Methods
- Script Writing for Radio & TV

Specialised Modules
- Advanced Social Media Technologies
- Communications Audit
- Customer Lifestyles and Behaviour
- E-Marketing
- Interactive Marketing
- Social Media Campaign Management
- Social Media Technologies

Common Modules
- Audiences, Consumption and Technology
- Copywriting
- Integrated Marketing Communications
- Strategic Marketing Planning

Specialised Modules
- Global Marketing
- Investigations in Social Media Marketing
- Law & Ethics in Social Media
- Marketing Decision Making
- Public Relations 3.0
- Social Media Marketing Project
- Social Media Marketing Strategies

Note: The specialism will appear only in the academic transcript.
Awards received by the university and our students at local, regional and international competitions are a testimony to the knowledge, skills and professional attributes.

Industry Excellence 2011
- Winner of Prime Minister’s Industry Excellence Award
- Winner of ‘Special Jury Award’ by the Prime Minister

Asia Pacific ICT Awards (APICTA) Malaysia (Multimedia Development Corporation)
2010 - Top Award for ‘Best of Tertiary Student Project’
2011 - Winner of ‘Special Jury Award’ by the Prime Minister
2011 - Top Award for ‘Best of Tertiary Student Project’
2011 - 2 Merit Awards for ‘Best of Tertiary Student Project’
2010 - Top Award for ‘Best of Tertiary Student Project’
2009 - Top Award for ‘Best of Applications & Infrastructure Tools’
2004 - Top Award for ‘Best of Education & Training’
2004 - Top Award for ‘Best of Applications & Infrastructure Tools’
2004 - Merit Award for ‘Best of Research & Development’
2003 - Merit Award for ‘Best of Research & Development’
2002 - Merit Award for ‘Best of Smart Learning Applications’
2000 - Merit Award for ‘Best of Smart Learning Applications’
2000 - Top Award for ‘Best of Students Projects’
1999 - Merit Award for ‘Best of Students Projects’

International Asia Pacific ICT Awards (APICTA)
2012 - Merit Award for ‘Best of Tertiary Student Project’
2011 - Merit Award for ‘Best of Tertiary Student Project’
2010 - Merit Award for ‘Best of Tertiary Student Project’
2004 - Merit Award for ‘Best of Applications & Infrastructure Tools’
2003 - Merit Award for ‘Best of Research & Development’
2002 - Merit Award for ‘Best of Research & Development’
2001 - Merit Award for ‘Best of Smart Learning Applications’
2000 - Merit Award for ‘Best of Smart Learning Applications’
2000 - Top Award for ‘Best of Students Projects’

Malaysian GreenTech Awards (Ministry of Energy, Green Technology & Water)
2012 - ‘Saver of Green Tech University’

NAPE Awards (National Association of Private Education Institutions, Malaysia)
2011 - Top Award for Educational Excellence
2007 - Award for Educational Excellence
2004 - Award for Educational Excellence

Stanford University’s Global Innovation Tournament 2009
2009 - Winner for Global Innovation Tournament Global Challenge

Microsoft Imagine Cup (Microsoft Inc.)
2013 - Winner of Microsoft Imagine Cup (Malaysia)
2012 - Top Award for ‘MIUC Special Innovation’
2011 - Winner of Microsoft Imagine Cup (Malaysia)
2011 - 1st Runner-up of Microsoft Imagine Cup (Malaysia)
2011 - 2nd Runner-up of Microsoft Imagine Cup (Malaysia)
2010 - Top Award for ‘Presentation Spectators’
2010 - Winner of Microsoft Imagine Cup (Malaysia)
2010 - Top 6 finalists at World Championship in Poland
2010 - Top Award for ‘Best Presentation Team’
2010 - Top Award for ‘Best Implementation of MultiPoint’
2004 - 3rd Prize Award for ‘System Government Elections Software’

HEP-IPTS Debate Competition (Ministry of Higher Education Malaysia)
2012 - Champion of HEP-IPTS Debate Competition
2012 - Best Speaker Award
2011 - 2nd Runner-up - HEP-IPTS Debate Competition

i-Hack Competition 2013 - by Malaysian Communications and Multimedia Commission (MCMC)
2013 - Champion for Home sec Challenge

Hack In The Box (HTB) International Competition 2010
2010 - 2nd place in the Vision of Mass Destruction Organisation

Malaysia Frost & Sullivan Technology Innovation Award 2010
2010 - Award for ‘Emerging Human Computer Interfaces Technologies’

World University Debates Championship 2010
2010 - Runner-up in the Grand Final

MSC Malaysia Creative Industry Awards 2009 (Games Category - Student)
2009 - Award for ‘Best of Software Design’
2009 - Award for ‘Best Technical’

ITEA Awards (International Invention, Innovation & Technology Exhibition)
2010 - 1st Merit Award for the 1st ICCE Award Innovation and Technology category
2013 - 2 Gold medals for the innovator category
2009 - Gold Award for ‘Back Invention - SmartSurface’
2009 - Special Award for Corporate Invention

Kopitiam Ekonomi Debate Challenge 2013 - Champions

Makeweekend Robotics Challenge 2013 - Winner of Water Drone Competition
2013 - Winner of ‘Best Robots’ Challenge

Innovise International ICT Innovative Services Contest 2013 - Second Prize of Innovise International ICT Innovative Services Contest
2013 - Best Innovation Award

Deloitte Inter-University Tax Competition 2013 - First Runner Up
2012 - First Runner Up (Individual Category)
2012 - 6th Place (Individual Category)

Business Excellence Award (Malaysia Canada Business Council)
2006 - Bronze award for Industry Excellence for Education

DKSH-CSSC Award
2006 - First Prize for DKSH-CSSC Media Challenge 2006

E-Genting Programming Competition (R&D Division, Genting)
2006 - First Prize for ‘Software Program Design and Development’
2004 - First Prize for ‘Software Program Design and Development’
2003 - First Prize for ‘Software Program Design and Development’
2002 - ‘Best of Malaysia’

HSBC Young IT Entrepreneurship Awards (Hong Kong Bank)
2004 - Gold Award for ‘Universal Wireless Charging’ Solution
2004 - Judges Award for ‘Security, Transmitter & Detection’ device
2002 - Silver Award for ‘Business Evaluation Access Medium’ Business Plan

MSC-IHL Business Plan Competition (Institutions of Higher Learning Business Plan Competition by Multimedia Development Corporation)
2012 - 1st prize for ‘Best Business Idea Category’
2010 - 1st prize for‘Best Business Idea Category’
2005 - Grand prize for Business Idea Category
2005 - Merit prize for Business Plan Category

Dare To Be Digital Programming Competition (British Council / University of Aberystwy, Dundee)
2003 - 1st Prize Award for a Multiplayer Online Game
2003 - 3rd Prize Award for a Risk Playing Strategy Game
Academic Research

For our staff, learning is a continuous journey where we keep abreast with the latest knowledge in a variety of fields. Our academic staff publish papers and present them at conferences worldwide. Some of the areas of research include:

- Embedded Systems & RFID
- Biometrics
- Games Engines
- 3D Graphics and Virtual Reality
- Security
- New Media Technologies
- Knowledge Management
- Mobile Learning
- Detecting Pornographic Images
- Adding Facial Expressions to Talking Head Models
- Marketing Professional Services
- Two and Three Dimension Audio-Visual Speech Synthesis
- Handwritten Signature Verification Using a Single Master Signature
- Customer Care
- E-Learning
- Entrepreneurial Business
- Various Aspects of Accounting
- International Marketing
- Generation of Business Ideas
- Organisational Culture Change
- Strategic Diversification Evaluation
World Class Facilities