# Advanced Diploma of Information Technology

## Description

This qualification provides high level information and communications technology (ICT), process improvement and business skills and knowledge to enable an individual to be effective in senior ICT roles within organisations.

## Job roles

Job roles and titles vary across different sectors. Possible job titles relevant to this qualification include: ICT projects manager, developer-cloud computing services/strategies for businesses, web programmer.

| **Employability Skills – Qualification Summary** | |
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| The following table contains a summary of the employability skills for this qualification. The employability skills facets described here are broad industry requirements | |
| Employability skill | Industry/enterprise requirements for this qualification include: |
| **Communication** | ▸ consulting, questioning, clarifying and evaluating information<br>▸ interpreting customer needs<br>▸ negotiating budgets and plans and then re-developing as required to meet organisational needs<br>▸ negotiating with internal and external stakeholders<br>▸ utilising excellent interpersonal skills, and producing a wide range of reports and making presentations as required |
| **Teamwork** | ▸ briefing various personnel on their roles and responsibilities regarding the implementation of the marketing plan<br>▸ coordinating resources and developing systems to manage team and individual performance<br>▸ defining performance measures and working collaboratively with team members<br>▸ identifying performance gaps and taking remedial action for underperformance |
| **Problem-solving** | ▸ assessing financial viability of new opportunities and matching organisational capability with market needs<br>▸ collecting and analysing data<br>▸ comparing and contrasting data |

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| | ▸ conducting situational analyses<br>▸ developing and managing risk and contingency plans<br>▸ developing strategies for improvement<br>▸ performing cost benefit analyses, budgeting, assessing and managing risk |
| **Initiative and enterprise** | ▸ evaluating and improving market performance<br>▸ identifying strengths and opportunities within organisation's projected capabilities and resources |
| **Planning and organising** | ▸ collecting, collating and analysing information using appropriate workplace business systems<br>▸ developing customer acquisition and retention strategies<br>▸ developing systems that are flexible and responsive to changing circumstances<br>▸ evaluating processes and making changes as required<br>▸ planning and managing resource acquisition and deployment within budgetary constraints<br>▸ planning for contingencies |
| **Self-management** | ▸ applying discretion and judgement within complex environments<br>▸ managing own time and performance<br>▸ using judgement in planning and in the selection and allocation of resources<br>▸ working within organisational policies and procedures and legislative requirements |
| **Learning** | ▸ coaching and mentoring others to acquire new knowledge and skills<br>▸ providing learning and development opportunities |
| **Technology** | ▸ creating presentations using a range of media<br>▸ using computerised systems, software and telecommunication devices<br>▸ using technology to assist with the management of information and to assist the planning process<br>▸ using technology to record and generate ideas |

**Duration:** 9 months + 6 months Industrial Attachment

**Qualification Entry Requirements**

**Academic**

- AAC Diploma of Information Technology OR
- Equivalent Diploma from any other PEIs in relevant field OR
- Obtained at least D for any GCE A-Level subject OR
- 12 years of formal education or equivalent

**Students who have completed Diploma of Information Technology will be granted exemption for 3 modules: DIT105 Web Programming; DIT114 Project Management; DIT115Workplace Cyber Security from Diploma of Information Technology (ICT50220).

**English Proficiency**

- IELTS 5.5 OR
- AAC EFL Level 5 or equivalent.

Students without formal English qualifications will be given a placement test to determine their level of proficiency.

Minimum age: 17 years old

**Qualification Modules**

**Full Time**

| # | Code | Module Name | Competency Code* | Competency Name* | Face to Face Contact Hours | Independent Learning Hours | Assessment Preparation Hours |
|---|---|---|---|---|---|---|---|
| 1 | DIT105 | Web Programming | ICTWEB513 | Build dynamic websites | 45 | 40 | 40 |
| | | | ICTWEB514 | Create dynamic web pages | | | |
| 2 | DIT114 | Project Management | ICTPMG609 | Plan and direct complex ICT projects | 45 | 40 | 40 |
| | | | ICTPMG606 | Manage ICT project complexity | | | |
| 3 | DIT115 | Workplace Cyber Security | BSBXCS402 | Promote workplace cyber security awareness and best practices | 45 | 40 | 40 |
| 4 | ADIT202 | Cloud Computing | ICTICT508 | Evaluate vendor products and equipment | 45 | 40 | 40 |
| | | | ICTPRG604 | Create cloud computing services. | | | |
| | | | ICTNWK616 | Managing security, privacy and compliance of cloud service deployment | | | |
| 5 | ADIT204 | ICT Copyrights and Ethics | ICTICT610 | Manage copyright, ethics and privacy in an ICT environment | 45 | 40 | 40 |
| 6 | ADIT206 | Manage ICT Team | BSBWOR502 | Lead and manage team effectiveness | 45 | 40 | 40 |
| | | | ICTICT602 | Develop contracts and manage contracted performance | | | |

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| 7 | ADIT208 | Advanced Programming | ICTPRG547 | Apply advanced programming skills in another language. | 45 | 40 | 40 |
| 8 | ADIT209 | ICT Strategic Business Plans | ICTSAD609 | Plan and monitor business analysis activities in an ICT environment | 45 | 40 | 40 |
| | | | ICTICT611 | Develop ICT strategic business plans | | | |
| 9 | ADIT210 | Cyber Security Assessments | ICTCYS601 | Create cyber security standards for organisations | 45 | 40 | 40 |
| | | | ICTCYS608 | Perform cyber security risk assessments | | | |
| 10 | ADIT207 | Industrial Attachment | - | - | - | 970 | - |
| | | | | | **405** | **360** | **360** |
| * Competency Code and Competency Name are taken from the 'ICT60220 - Advanced Diploma of Information Technology (Release 3)'. | | | | | **Total 1125 learning hours (Excluding Industrial Attachment)** | | |

** The Industrial Attachment will be a compulsory and integral module of the ADIT. If a student is unable to participate in the Industrial Attachment module due to circumstances beyond the control of the student or the College, like non-approval of the Training Work Permit by the Ministry of Manpower, the student will be required to complete a Research-Based Project with the submission of a report to be considered for graduation for the course. The maximum duration to complete the project work will be three (3) months.

**Part Time**

| # | Code | Module Name | Competency Code* | Competency Name* | Face to Face Contact Hours | Independent Learning Hours | Assessment Preparation Hours |
|---|---|---|---|---|---|---|---|
| 1 | DIT105 | Web Programming | ICTWEB513 | Build dynamic websites | 30 | 55 | 40 |
| | | | ICTWEB514 | Create dynamic web pages | | | |
| 2 | DIT114 | Project Management | ICTPMG609 | Plan and direct complex ICT projects | 30 | 55 | 40 |
| | | | ICTPMG606 | Manage ICT project complexity | | | |
| 3 | DIT115 | Workplace Cyber Security | BSBXCS402 | Promote workplace cyber security awareness and best practices. | 30 | 55 | 40 |
| 4 | ADIT202 | Cloud Computing | ICTICT508 | Evaluate vendor products and equipment | 30 | 55 | 40 |
| | | | ICTPRG604 | Create cloud computing services | | | |
| | | | ICTNWK616 | Managing security, privacy and compliance of cloud service deployment | | | |
| 5 | ADIT204 | ICT Copyrights and Ethics | ICTICT610 | Manage copyright, ethics and privacy in an ICT environment | 30 | 55 | 40 |
| 6 | ADIT206 | Manage ICT Team | BSBWOR502 | Lead and manage team effectiveness | 30 | 55 | 40 |
| | | | ICTICT602 | Develop contracts and manage contracted performance | | | |
| 7 | ADIT208 | Advanced Programming | ICTPRG547 | Apply advanced programming skills in another language. | 30 | 55 | 40 |

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| 8 | ADIT209 | ICT Strategic Business Plans | ICTSAD609 | Plan and monitor business analysis activities in an ICT environment | 30 | 55 | 40 |
| | | | ICTICT611 | Develop ICT strategic business plans | | | |
| 9 | ADIT210 | Cyber Security Assessments | ICTCYS601 | Create cyber security standards for organisations | 30 | 55 | 40 |
| | | | ICTCYS608 | Perform cyber security risk assessments | | | |
| 10 | ADIT207 | Industrial Attachment | - | - | - | 970 | - |
| | | | | | **270** | **495** | **360** |
| * Competency Code and Competency Name are taken from the 'ICT60220 - Advanced Diploma of Information Technology (Release 3)'. | | | | | **Total 1125 learning hours (Excluding Industrial Attachment)** | | |

** The Industrial Attachment will be a compulsory and integral module of the ADIT. If a student is unable to participate in the Industrial Attachment module due to circumstances beyond the control of the student or the College, like non-approval of the Training Work Permit by the Ministry of Manpower, the student will be required to complete a Research-Based Project with the submission of a report to be considered for graduation for the course. The maximum duration to complete the project work will be three (3) months.

| **Synopsis** | | | |
|---|---|---|---|
| **Module Name** | **Competency Code*** | **Competency Name*** | **Description** |
| Web Programming | ICTWEB513 | Build dynamic websites | This unit describes the skills and knowledge required to analyse and design websites to meet technical requirements. |
| | ICTWEB514 | Create dynamic web pages | This unit describes the skills and knowledge required to analyse and design websites to meet technical requirements. |

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| Project Management | ICTPMG609 | Plan and direct complex ICT projects | This unit describes the skills and knowledge required to identify, plan, control and finalize complex information and communications technology (ICT) projects |
| | ICTPMG606 | Manage ICT project complexity | This unit describes the skills and knowledge required to implement quality assurance processes using quality control data to ensure continuous improvement for the benefit of current and future information and communications technology (ICT) projects |
| Workplace Cyber Security | BSBXCS402 | Promote workplace cyber security awareness and best practices | This unit describes the skills and knowledge required to promote cyber security in a work area. |
| Cloud Computing | ICTICT508 | Evaluate vendor products and equipment | This unit describes the skills and knowledge required to evaluate and test a range of vendor products and equipment against a client's business requirements. |
| | ICTPRG604 | Create cloud computing services | This unit describes the skills and knowledge required to design, build, test and deploy web services and cloud computing applications to specifications. |
| | ICTNWK616 | Managing security, privacy and compliance of cloud service deployment | This unit describes the skills and knowledge required to manage cloud security controls, and privacy and legal compliance, when implementing cloud services for an enterprise. |
| ICT Copyrights and Ethics | ICTICT610 | Manage copyright, ethics and privacy in an ICT environment | This unit describes the skills and knowledge required to manage the issues of copyright and professional and ethical conduct in a team, as well as to ensure that personal information of stakeholders is handled in a confidential and |

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| | | | professional manner. |
| Manage ICT Team | BSBWOR502 | Lead and manage team effectiveness | This unit describes the skills and knowledge required to lead teams in the workplace and to actively engage with the management of the organization. |
| | ICTICT602 | Develop contracts and manage contracted performance | This unit describes the skills and knowledge required to negotiate and document contractual arrangements between clients and vendors, and to monitor and manage performance against agreed contractual obligations. |
| Advanced Programming | ICTPRG547 | Apply advanced programming skills in another language. | This unit describes the skills and knowledge required to undertake advanced level programming tasks using another programming language. The language may be an object-oriented language |
| ICT Strategic Business Plans | ICTSAD609 | Plan and monitor business analysis activities in an ICT environment | This unit describes the skills and knowledge required to establish and manage Information and Communications Technology (ICT) business analysis activities in a medium-to-large organisation. |
| | ICTICT611 | Develop ICT strategic business plans | This unit describes the skills and knowledge required to create strategic in alignment with organisational Information and Communications Technology (ICT) goals and strategies. |
| Cyber Security Assessments | ICTCYS601 | Create cyber security standards for organisations | This unit describes the skills and knowledge required to research, plan and implement cyber security standards for an organisation. |

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| | ICTCYS608 | Perform cyber security risk assessments | This unit describes the skills and knowledge required to conduct a risk assessment and analysis in a business environment. The risk assessment requires the identity and alignment of an organisation's operating environment to their required risk register and the realignment of their operations. |
| Industrial Attachment | ADIT207 | Industrial Attachment | The industrial attachment allows the student to apply the concepts and principles gained in the Advanced Diploma of Information Technology. Students will undertake an internship programme with IT companies and companies with IT departments exposed to network servers, software, and hardware development, supporting IT infrastructure and system security, web programming, or any other areas in the IT sector related to their interest or area of specialisation. |

**Assessment Arrangements**

| Competency Code | Competency Name | Demonstration | Practical | Activities | Observation | Role play | Case study/Scenario | Questions and Answers | Project/Report | Presentation, | Portfolio/Journal | Online |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ICTWEB513 | Build dynamic websites | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTWEB514 | Create dynamic web pages | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTPMG609 | Plan and direct complex ICT projects | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTPMG606 | Manage ICT project complexity | | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | |
| BSBXCS402 | Promote workplace cyber security awareness and best practices | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| ICTICT508 | Evaluate vendor products and equipment | | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTPRG604 | Create cloud computing services | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTNWK616 | Managing security, privacy and compliance of cloud service deployment | | ✓ | | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTICT610 | Manage copyright, ethics and privacy in an ICT environment | | | | | ✓ | ✓ | ✓ | ✓ | | | |
| BSBWOR502 | Lead and manage team effectiveness | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | |
| ICTICT602 | Develop contracts and manage contracted performance | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| ICTPRG547 | Apply advanced programming skills in another language. | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| ICTSAD609 | Plan and monitor business analysis activities in an ICT environment | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |

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| ICTICT611 | Develop ICT strategic business plans | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| ICTCYS601 | Create cyber security standards for organisations | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | | |
| ICTCYS608 | Perform cyber security risk assessments | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | | |
| ADIT207 | Industrial Attachment | | | | | | | | ✓ | | | |

The assessment objectives tested in these modules are broadly categorised in the following hierarchical order:

1. **Knowledge:** Exhibit memory of previously learned materials by recalling facts, terms, basic concepts and answers
2. **Comprehension:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating the main ideas
3. **Application:** Using new knowledge. Solve problems in new situations by applying acquired knowledge, facts, techniques and rules in a different way
4. **Analysis:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations
5. **Evaluation:** Present and defend opinions by making judgments about information, validity of ideas or quality of work based on a set of criteria
6. **Synthesis:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions

**Specification Grid**

The relationship between the assessment objectives and components of the scheme of assessment is as follows

| Knowledge | Comprehension | Application | Analysis | Evaluation | Synthesis |
|---|---|---|---|---|---|
| 10% | 20% | 20% | 20% | 20% | 10% |

The assessment objectives are weighted to give an indication of their relative importance.
They are not intended to provide a precise statement of the number of marks in particular skills.

| Code | Name of the module | Assessment 1 | Assessment 2 |
|---|---|---|---|
| DIT105 | Web Programming | 50% | 50% |
| DIT114 | Project Management | 50% | 50% |
| DIT115 | Workplace Cyber Security | 50% | 50% |
| ADIT202 | Cloud Computing | 50% | 50% |
| ADIT204 | ICT Copyrights and Ethics | 50% | 50% |
| ADIT206 | Manage ICT Team | 50% | 50% |
| ADIT208 | Advanced Programming | 50% | 50% |
| ADIT209 | ICT Strategic Business Plans | 50% | 50% |
| ADIT210 | Cyber Security Assessments | 50% | 50% |
| ADIT207 | Industrial Attachment | 100% | NA |

**Graduation Requirement:**

In order to be awarded the Advanced Diploma of Information Technology, a student must obtain at least a **Pass Grade** in all the modules within the eligibility period of 2 years from the original completion date.