

|                                     |                                                                                                                                                                                                                                              |                                               |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Training Package</b>             | <b>Information Technology ICA99</b>                                                                                                                                                                                                          | <b>Unit Code</b>                              |
| <b>Title:</b>                       | <b>Apply problem-solving techniques to achieve organisational goals</b>                                                                                                                                                                      | <b>ICAITS010B</b>                             |
| <b>Unit Descriptor</b>              | This unit expressed the competency required to apply problem-solving techniques to determine and resolve the root cause of a routine malfunction.                                                                                            | <b>HSC Indicative Hours:</b><br><br><b>15</b> |
| <b>Field/Stream</b>                 | Support Information Technology                                                                                                                                                                                                               |                                               |
| <b>Related Competency Standards</b> | The project life cycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Use, Documentation and Teamwork functional areas. |                                               |

| <b>Key Competencies</b>                    |                                   |                              |                               |                                       |                |                |                         |
|--------------------------------------------|-----------------------------------|------------------------------|-------------------------------|---------------------------------------|----------------|----------------|-------------------------|
| Collect, Analyse, and Organise Information | Communicate Ideas and Information | Plan and Organise Activities | Work with Others and in Teams | Use Mathematical Ideas and Techniques | Solve Problems | Use Technology | Cultural Understandings |
| 2                                          | 2                                 | 1                            | 2                             | 1                                     | 2              | 2              | 1                       |

|                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related learning for the HSC</b>                                                                                                                                                                                                                                                               | <b>Resources that may be used for in training and assessment for this unit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>Students may draw on skills and knowledge developed in other studies to achieve competency in this unit. This can include:</p> <ul style="list-style-type: none"> <li>• Stage 6 Science courses</li> <li>• Design and technology</li> <li>• Mathematics</li> <li>• Business Studies</li> </ul> | <ul style="list-style-type: none"> <li>• Non-endorsed materials for ICAITS010B</li> <li>• TAFE NSW Module 3624E – Software applications project</li> <li>• TAFE NSW Module 3624L – Hardware/software portfolio</li> <li>• Computing industry magazines and journals</li> <li>• Computer vendor advertising materials</li> <li>• Computer manuals and tutorials</li> <li>• Materials developed by Registered Training Organisations</li> <li>• Various commercially produced materials including textbooks and computer tutorials</li> </ul> |

|                                     |                                                                                                                                                                                                                                              |                                               |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Training Package</b>             | <b>Information Technology ICA99</b>                                                                                                                                                                                                          | <b>Unit Code</b>                              |
| <b>Title:</b>                       | <b>Apply problem-solving techniques to achieve organisational goals</b>                                                                                                                                                                      | <b>ICAITS010B</b>                             |
| <b>Unit Descriptor</b>              | This unit expressed the competency required to apply problem-solving techniques to determine and resolve the root cause of a routine malfunction.                                                                                            | <b>HSC Indicative Hours:</b><br><br><b>15</b> |
| <b>Field/Stream</b>                 | Support Information Technology                                                                                                                                                                                                               |                                               |
| <b>Related Competency Standards</b> | The project life cycle and the IT methodology employed will determine which particular units of competency are relevant to this unit, some include the Project Management, Implementation, Use, Documentation and Teamwork functional areas. |                                               |

| <b>Element of Competency</b>                       | <b>Performance Criteria</b>                                                                                                                                                              | <b>Underpinning Skills and Knowledge</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Evidence Requirements</b>                                                                                                                                                                                                                 | <b>HSC Requirements</b>                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Scan immediate environment to identify problems | <ol style="list-style-type: none"> <li>Immediate work environment is defined with supervisor</li> <li>Irregularities in environment are identified and acted upon accordingly</li> </ol> | <ul style="list-style-type: none"> <li>Broad understanding of systems and the organisation</li> <li>Broad knowledge of help desk and maintenance practices</li> <li>Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas</li> <li>Broad knowledge of the operating system</li> <li>Broad knowledge of the client business domain</li> <li>A broad knowledge base incorporating current industry practices relating to escalation procedures</li> </ul> | <p><b>Critical aspects of assessment</b></p> <p>Assessment must confirm the ability to apply problem-solving techniques to determine the root cause of a routine malfunction or to refer the problem according to escalation procedures.</p> | <p><b>Key Terms and Concepts</b></p> <ul style="list-style-type: none"> <li>basic workflow, situational and needs analysis</li> <li>product knowledge – industry standard hardware and software</li> <li>diagnostic, auditing software</li> <li>remote management software</li> <li>Gantt charts, pert charts, critical paths</li> <li>exception reporting</li> </ul> |

| Element of Competency                            | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                     | Underpinning Skills and Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                   | Evidence Requirements                                                                                                                                                                                                                                                                                           | HSC Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. Identify, assess and resolve routine problems | <ol style="list-style-type: none"> <li>1. Routine problems are identified</li> <li>2. Possible options are identified</li> <li>3. Ramifications on self and working environment are assessed</li> <li>4. Information and ideas are conveyed to affected people and supervisor</li> <li>5. 'Implement solution' is implemented or problem is referred to appropriate personnel</li> </ol> | <ul style="list-style-type: none"> <li>• Broad knowledge base of diagnostic tools</li> <li>• General principles of OH&amp;S</li> <li>• Divisional/unit responsibilities</li> <li>• Decision making within a limited range of options</li> <li>• Communication is clear, precise and varies according to audience</li> <li>• Team work is participated in taking limited personal responsibility</li> <li>• Time management is applied to self management</li> </ul> | <p><b>Interdependent units of assessment</b></p> <p>The interdependence of units of competency for assessment will vary with the particular project or scenario. This unit has importance to a range of IT services and should therefore be assessed in a holistic manner with the technical/support units.</p> | <p><b>Learning experiences for the HSC must include:</b></p> <ul style="list-style-type: none"> <li>• the use of help desk (call tracking) software to record and manage client inquiries</li> <li>• the creation of Gantt charts to outline project tasks and timelines</li> <li>• the development of a simple project definition statement intended to address a real or hypothetical situation</li> <li>• developing or adding to a hardware and software product folio and interpretation.</li> </ul> |
| 3. Refer non-standard problem to supervisor      | <ol style="list-style-type: none"> <li>1. Problem and concerns are relayed to the supervisor</li> <li>2. Supervisor's recommendations are acted on</li> </ol>                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Analytical skills in relation to routine malfunctions</li> <li>• General customer Service skills displayed</li> <li>• Questioning and active listening is employed clarify general information</li> <li>• ICAITW001B</li> </ul>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Resources</b>            | Peers and supervisors for obtaining information on the extent and quality of the contribution made.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Consistency</b>          | Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Context</b>              | <p>Work is carried out under direct supervision. An individual demonstrating these competencies would be able to:</p> <ul style="list-style-type: none"> <li>• demonstrate knowledge by recall in a narrow range of areas</li> <li>• demonstrate basic practical skills, such as the use of relevant tools</li> <li>• perform a sequence of routine tasks given clear direction, and</li> <li>• receive and pass on messages/information.</li> </ul> <p>This competency can be assessed in the workplace or in a simulated environment.</p> |
| <b>Range of Variables</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Variable</b>             | <b>Scope</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Organisational              | Variables may include, but are not limited to: work environment; problem solution processes; preventative maintenance and diagnostic policy; roles and technical responsibilities in the Information Technology department; vendor and product service level support agreements                                                                                                                                                                                                                                                             |
| Communication               | Variables may include, but are not limited to: written communication may involve both hand written and printed material, internal memos, electronic mail, briefing notes, and bulletin boards.                                                                                                                                                                                                                                                                                                                                              |
| Problems                    | Including routine individual problems that may affect the immediate work environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Client user                 | May be a department within the organisation or a third party. Consequently, the relationship and ease of access will vary.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Documentation and reporting | Audit trails, naming standards, version control.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| OH&S standards              | As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.                                                                                                                                                                                                                                                                                                                                                                                      |