



Australian Government

Department of Education, Employment and Workplace Relations

ICA50811 Diploma of Systems Analysis and Design

Release: 1

ICA50811 Diploma of Systems Analysis and Design

Modification History

Release	Comments
Release 1	This Qualification first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Description

This qualification provides the skills and knowledge for an individual to determine client business requirements and to support a project team in the analysis and redesign of systems to ensure they meet client needs.

Job roles

Possible job titles relevant to this qualification include:

- applications architect
- business analyst
- systems analyst
- systems architect
- information technology analyst.

Pathways Information

Pathways into the qualification

Preferred pathways for candidates considering this qualification include:

- after achieving ICA40711 Certificate IV in Systems Analysis and Design, or other relevant qualifications or units equivalent to the core of ICA40711.

OR

- with demonstrated vocational experience in a range of work environments in senior information technology and/or systems roles, including analyst or design roles.

Pathways from the qualification

ICA11 Advanced Diploma or Vocational Graduate Certificate qualifications or other higher education sector qualifications.

Licensing/Regulatory Information

There is no link between this qualification and licensing, legislative or regulatory requirements. However users should confirm requirements with the relevant federal, state or territory authority. There may be some alignment with industry standard certification competencies.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

The following table contains a summary of the employability skills required by industry for this qualification. The employability skills facets described here are broad industry requirements that may vary depending on qualification packaging options.

Employability skill	Industry/enterprise requirements for this qualification
Communication	<ul style="list-style-type: none"> • communicating concepts and solutions for complex issues to colleagues and clients • using plain English skills in relation to analysis, evaluation and presentation of information • writing and presenting complex technical briefs and reports
Teamwork	<ul style="list-style-type: none"> • participating in teams concerned with planning and evaluation functions
Problem-solving	<ul style="list-style-type: none"> • analysing requirements and devising solutions to technical problems or management issues • holding discussions on quality issues with development staff and establishing agreed actions
Initiative and enterprise	<ul style="list-style-type: none"> • conducting research to determine client business requirements • integrating sustainability in ICT planning and design projects • matching client IT requirements with the strategic direction of the enterprise • anticipating potential problems and devising solutions
Planning and organising	<ul style="list-style-type: none"> • managing information technology projects in relation to project scope, time, cost, quality, communications and risk management
Self-management	<ul style="list-style-type: none"> • managing own time and work priorities against project plan and schedule • taking responsibility and exercising autonomy in performing complex technical operations or organising others
Learning	<ul style="list-style-type: none"> • extending own skills and knowledge of tools and software applications and the goods and services provided • devising and implementing client evaluation and feedback methodologies • providing learning and development opportunities for project team members
Technology	<ul style="list-style-type: none"> • determining and administering technology needs • sourcing, purchasing, installing, configuring and testing system components, including software and hardware

Packaging Rules

Total number of units = 21

9 core units *plus*

12 elective units

The elective units consist of:

- up to 12 from the elective units listed below
- up to 4 from elsewhere in ICA11 or any other Training Package or accredited course at Diploma or Advanced Diploma level.

The elective units chosen must be relevant to the work outcome and meet local industry needs.

Core units

ICADBS502A Design a database

ICAICT401A Determine and confirm client business requirements

ICAICT403A Apply software development methodologies

ICAICT418A Contribute to copyright, ethics and privacy in an IT environment

ICAICT502A Develop detailed component specifications from project specifications

ICAICT509A Gather data to identify business requirements

ICAICT511A Match IT needs with the strategic direction of the enterprise

ICTSUS6233A Integrate sustainability in ICT planning and design projects

ICTTEN5204A Produce technical solutions from business specifications

Elective units

ICAICT510A Determine appropriate IT strategies and solutions

ICAICT512A Plan process re-engineering strategies for business

ICAICT514A Identify and manage the implementation of current industry-specific technologies

ICANWK514A Model preferred system solutions

ICAPMG501A Manage IT projects

ICAPRG418A Apply intermediate programming skills in another language

ICAPRG509A Build using rapid application development

ICAPRG514A Prepare for software development using rapid application development

ICAPRG515A Review developed software

ICAPRG518A Monitor the system pilot

ICAPRG524A Develop high-level object-oriented class specifications

ICAPRG527A Apply intermediate object-oriented language skills

ICASAD501A Model data objects

ICASAD502A Model data processes

ICASAS422A Scope implementation requirements

ICASAS502A Establish and maintain client user liaison

ICASAS505A Review and update disaster recovery and contingency plans

ICASAS506A Update IT system operational procedures

ICASAS507A Implement and evaluate systems for regulatory and standards compliance

ICASAS513A Develop detailed test plans

ICTTEN5024A Provide consultancy and technical support in the customer premises equipment sector

Selecting elective units for different outcomes

The following examples are designed to assist in the selection of appropriate electives for particular outcomes at this level, but are in no way prescriptive.

Analyst programmer

Core units plus:

- ICAPRG418A Apply intermediate programming skills in another language
- ICAPRG527A Apply intermediate object-oriented language skills
- ICAPRG509A Build using rapid application development
- ICAPRG514A Prepare for software development using rapid application development
- ICAPRG524A Develop high-level object-oriented class specifications

System designer

Core units plus:

- ICANWK514A Model preferred system solutions
- ICASAD501A Model data objects
- ICASAD502A Model data processes