

DIPLOMA OF IRRIGATION

Course Code: RTE50203

January 2009

COURSE DESCRIPTION

Recognise and develop skills and knowledge required by designers in the irrigation industry.

COURSE STRUCTURE

RTE5601A

Audit irrigation systems

This competency standard covers the process of collating and assessing system performance data, and compiling a system evaluation report including recommendations for improvements. It requires the ability to analyse and organise data, solve performance problems and recommend solutions, identify adverse environmental impacts of irrigation system activities and recommend appropriate remedial action, and use computer software for irrigation auditing. Auditing irrigation systems requires knowledge of evaluation procedures, irrigation system performance indicators, statistical data analysis procedures or software, and environmental impacts of irrigation systems using water from any ground or underground source.

RTE5603A

Design irrigation, drainage and water treatment systems

This competency standard covers the process of identifying design requirements, determining specifications for suitable pumping and power systems, designing distribution, drainage, storage and treatment systems, and determining capital and operating expense budgets for the system designed. It requires the ability to collect and analyse information, identify design requirements, develop specifications, compare costings, develop budgets and document outcomes. Designing irrigation, drainage and water treatment systems requires knowledge of design processes, developments in related technology, automatic control and monitoring systems, waste management and environmental issues, budgeting, contractual development and obligations, and environmental protection agency regulations.

RTE5606A

Manage water systems

This competency standard covers the process of strategically managing an integrated system involving relationships between irrigation, drainage and environmental systems. This includes determining the feasibility of using or upgrading an irrigation system, installing or

modifying the system as necessary, managing water systems, and evaluating irrigation system outputs. Managing irrigation systems requires knowledge of plant requirements, water quality, environmental impacts of irrigation, using water from any ground or underground source, cost/benefit analysis, and enterprise policies and procedures.

RTE5608A

Design water treatment systems

This competency standard covers the process of identifying design requirements, determining specifications for storage and treatment systems, and determining capital and operating expense budgets for the system designed. It requires the ability to collect and analyse information, identify design requirements, develop specifications, compare costings, develop budgets and document outcomes. Designing water treatment systems requires knowledge of design processes, developments in related technology, automatic control and monitoring systems, waste management and environmental issues, budgeting, contractual development and obligations, and environmental protection agency regulations.

RTE4602A

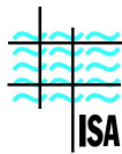
Determine hydraulic parameters for an irrigation system

This competency standard covers the process of determining hydraulic parameters for an irrigation system without supervision, but with general guidance on progress. It includes confirmation of water delivery requirements, determining the pressures needed to deliver a required amount of water over a specified area, determining pressure losses through the system, and selecting system components for efficient water delivery.

RTC5908A

Prepare estimates, quotes and tenders

This competency standard covers the process of preparing estimates, quotes and tenders in a horticultural, agricultural or land management enterprise. Estimates or quotes may be developed as standalone estimates or quotes for a specific purpose, or they may be incorporated in tenders. Work is likely to be under limited supervision with checking related to overall progress by senior managers. Responsibility for the work of others and team coordination may be required. Estimating, quoting and tendering are usually performed within policy guidelines and procedures where discretion and judgement are required in the selection of technology, work organization, and the achievement of outcomes within time and budgetary constraints.



RTC5801A

Provide specialist advice to clients

This competency standard covers the process of providing specialist advice to clients relevant to agriculture, horticulture, or conservation and land management. It requires the ability to develop and maintain technical knowledge, communicate with clients, and formulate a response to client enquiries and needs. Providing specialist information to clients requires knowledge of environmental sustainability and land use issues, enterprise policy, legislation and consultation methods, techniques and protocols.

PSPPM502A

Manage projects

This unit covers management of projects that may be reasonably complex in terms of scope, degree of risk, political, cultural and social factors that apply consequences of failure and degree of control of the projects. It includes managing start-up, project implementation, project integration and follow-up activities. Contract management requirements are not included as this aspect is addressed by units of competency within the Key Area of Procurement and Contract Management. In practice, managing complex projects overlaps with other generalist and specialist work activities such as acting ethically, coordinating resource allocation and usage, developing client services, undertaking research and analysis, etc.

MEM9.9C

Create 2D drawings using computer aided design system

This unit applies to the production of 2D drawings using a CAD system, linked bills of material, file management and associated customisation of installed software including the use of macros, menus and default settings; file formats may include IGES, DXF, HPGL.

MEM9.2B

Interpret technical drawing

This unit covers interpreting technical drawing applying to any of the full range of engineering disciplines. Technical drawings may utilise perspective, exploded views or hidden view techniques. Drawings are provided to Australian Standard 1100 and/or Australian Standard 1102 and their equivalents from the full range of engineering disciplines.

Standard symbols to Australian Standard 1100 and/or Australian Standard 1102 or equivalent are recognised in field of employment. Technical drawings may include symbol glossaries. MEM9.2B is a pre-requisite to MEM9.9C.

MEM16.8A

Interact with computing technology

This unit applies in manufacturing, engineering or related environments. It involves identifying the type and source of information required, and using the technology to access, input and store information. The equipment may include computers and a range of other equipment based on computing technology. MEM16.8A is a pre-requisite to MEM9.9C.

WRR02B

Manage sales and service delivery

This unit covers the skills and knowledge required to monitor, maintain and improve sales and service delivery. It involves market research, developing new markets and marketing products and services within the culture of the overall enterprise policy.

COURSE DURATION

This course is delivered flexibly but generally within 12 months

FLEXIBLE LEARNING & ASSESSMENT PROCEDURES

The program consists of workplace training covering the underpinning knowledge and skills, and practical design work which will focus on real projects relevant to your environment. Participants need to successfully complete both workplace training and study.

FEES AND WITHDRAWAL

Students are required to pay an enrolment fee and amenities fee. Full payment of course fees prior to commencement of classes is necessary, except where a concession or exemption has been granted, authority to invoice from a third party or payment by instalment has been arranged.

A student can withdraw from a course at any time. Any refund of fees will be determined at the time of withdrawal.

Results will be withheld if there are any outstanding debts, including fees, to be paid.

PRIVACY

ISA will not use or disclose personal and/or health information about an individual for a purpose other than the primary purpose of collection unless a prescribed exception applies.



Irrigation Systems Australia Pty Ltd

DIRECT CREDIT TRANSFER

Direct Credit is available to students who enroll in a course and have existing identical qualification from the same or another course.

FOR FURTHER INFORMATION

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