




## General Electrical Training





Competency Training offers a wide range of both scheduled and customised training solutions. Below you will find a list and description of our General Electrical Courses. These can also be tailored to suit your requirements and procedures. Scheduling of these courses is in accordance with client requests and trainer availability and can be run onsite or in one of our training centres.

**Please contact us if you would like further information on any of these courses or to discuss how we can meet your training requirements.**

#### **Arc Flash PPE (2 Hours)**

An overview of the conditions which contribute to increased risk of arc flash incident and the selection, use and care of Personal Protective Equipment which must be used whenever there is a risk of arc flash.

#### **Bridging and Overriding (3 Hours)**

This course provides definitions of Bridging and Overriding, including explaining the circumstances under which an electrician may be required to perform bridging or overriding.

Company procedures used to gain approval for bridging or overriding are also included, so must be provided by the requesting company ahead of time.

#### **Earthing Systems and Fault Loop Impedance (4 Hours)**

This course is presented to explain the regulatory path that requires electrical designers and workers in each state to comply with the mandated standards around the subjects of touch potential, fault loop impedance and earth fault current.

This is achieved by demonstrating the application of indirect contact protection by automatic disconnection of supply as required by AS/NZS 3000:2007 and by giving technical guidance and details in its practical application in an industrial environment.

#### **Electrical Appreciation Course (8 Hours)**

A course suitable for mechanical and operations personnel to provide an understanding of electrical safety and operation of electrical equipment.

The course includes an overview of legislation, Australian Standards and company procedures, electric shock and incidents, access to electrical equipment, an overview of power systems, electrical faults and what to look for, the consequences of multiple starts on motors and what causes overload conditions.

The course is assessed and a certificate is provided upon successful completion.

#### **Electrical Standards and Regulations (8 Hours)**

This course reviews recent changes to AS3000 and various other industry-related Australian Standards as well as relevant state legislation. Regulations and standards are reviewed with a methodical approach to compliance explained and documented by worked examples. It is recommended a refresher is completed every two years to be kept up to date with changes to standards and legislation.

#### **Electrical Supervisors Competency (8 Hours)**

This course has been designed for the WA Mining Industry to cover all aspects of duties and responsibilities of an electrical supervisor.

The course is conducted with an opportunity for interaction and discussion among the participants with particular emphasis on a clear understanding and comprehension of statutory and other requirements to be met and how this can be achieved. The course includes a number of handouts including a hard cover manual, "Guidelines for Electrical Supervisors".

This course can be modified for delivery in other states by inclusion of specific state legislation.

It is recommended for all electrical supervisors as initial training and ongoing refresher training is recommended every 2 years.

#### **Electrical Worker Competency (8 Hours)**

This course covers relevant state legislation, AS3000, AS3017 and AS3760 and includes practical testing and fault finding on test boards with a number of faults set up. It also includes usage of test instruments such as a multi meter, megger, portable appliance tester, RCD tester and fault loop impedance tester.

It is recommended that this course is conducted on a 2 yearly basis to serve as a refresher and keep up with changes to legislation and Australian Standards.

The course is assessed with both theory and practical components and a certificate is provided on successful completion.

### **Electrical Safety Observer (2 Hours)**

This course provides instruction and training for personnel to carry out the duties of a Safety Observer. The legislative requirements of AS 4836 and relevant state legislation are addressed, and information is provided on the hazards that exist when working on or near energised electrical apparatus, inspection of the work area, risk assessment, personal protective equipment and emergency procedures.

### **Electrical Worker Induction (2 Hours)**

This course provides general information on legislative requirements relating to relevant state legislation. This course can also be customised to meet company or site-specific induction requirements.

### **Electrical Worker Responsibilities (4 Hours)**

This course provides information on legislative requirements which apply to a licensed electrical worker in the mining industry in WA, including the WA Electricity Act, Electricity Act Regulations, Electricity (Licensing) Regulations, WA Electrical Requirements and the WA Mines Safety and Inspection Act and Mines Safety and Inspection Regulations.

This course could be modified for delivery in other states by inclusion of specific state legislation.

### **Excavation and Penetration (2 Hours)**

This course is designed for any worker whose duties may involve excavation or penetration work. Excavation and penetration are defined and the requirements and procedures for obtaining permit to work are explained and demonstrated. Company procedures relating to excavation and penetration work must be provided prior to the course.

### **Fault Finding Techniques (4 Hours)**

This course relates specifically to fault finding on low voltage installations/equipment. It provides information on legislative requirements, safe work practices when using diagnostic equipment, fault diagnosis on equipment including electrical motors, lighting circuits and other low voltage equipment and reporting and/or rectification of faults. Company procedures/standards for fault finding, fault reporting and fault rectification can be included, but must be provided prior to the course.

### **High Voltage Isolation (8 Hours)**

HV isolation courses are designed to train non-electrical personnel to isolate high voltage switchgear for mechanical or production maintenance purposes.

This course can be carried out on the client's equipment, or alternatively at our Jandakot Training centre where full practical facilities are available.

### **High Voltage Recipient In Charge (3 Hours)**

This course is designed to cover company specific requirements relating to a high voltage permit holder. It includes information on legislative requirements and Australian Standards that apply to high voltage operational personnel, hazards that are present when working on or near energised electrical equipment/apparatus, and safety precautions and requirements.

### **Powerline Corridor Safety Awareness (3 Hours)**

This course is designed to cover the requirements for vehicles and machinery operating in a Powerline Corridor in proximity to overhead power lines. It includes requirements of Australian Standards and relevant state legislation, actual incidents and emergency response methods. It is recommended for all personnel who operate vehicles and machinery in such areas.

### **Safe Work on Low Voltage Systems (2 Hours)**

This course specifically addresses the requirements of the WA Department of Commerce's publication Code of Practice Safe Low Voltage Work Practices by Electricians.

This course could be modified for delivery in other states by inclusion of specific state legislation.

### **Substation Safety & Low Voltage Rescue (4 Hours)**

This course provides information on the equipment that exists in an electrical substation (including safety equipment and operational equipment), the hazards that are present with working on or near energised electrical equipment/apparatus and the personal protective equipment requirements.

This is followed by demonstration of equipment and techniques to be used for personnel to perform the safe rescue of a person who has suffered injury or low voltage electric shock.

### **Welding Electrical Safety (4 Hours)**

A course suitable for maintenance personnel to provide an understanding of the hazards and safe work practices necessary for safe welding. It includes Australian standards applicable, case studies and is recommended by the Welding Institute of Australia.



## TRAINING CENTRES ACROSS AUSTRALIA



[www.competencytraining.com.au](http://www.competencytraining.com.au)

### Training Centres

**Perth** - Level 3, 251 Adelaide Terrace, Perth, Western Australia, 6000

**Jandakot** - 10 Avior Avenue, Jandakot, Western Australia, 6164

**Brisbane** - 433 Boundary Street, Spring Hill, Queensland, 4000

**Melbourne** - 125 Fairbairn Road, Sunshine West, Victoria, 3032

**Sydney** - NHP, 30-34 Day Street, Silverwater, New South Wales, 2128

**Adelaide** - Peer Veet, 1042 Port Road, Albert Park, South Australia, 501

**New Zealand** - ITL, 435 Devon St East, New Plymouth 4312

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