

1 Module Details	
Module Name	Data Communications Systems Safety
Nominal duration	It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 18 to 20hours.
Module code	NUE503
Discipline code	0703520
2 Module purpose	This module provides methods and criteria for ensuring a person has achieved levels of performance in the critical skills related to the installation, maintenance, repair, fault finding, testing and commissioning of data communications systems and associated equipment.
3 Prerequisites	This module shall be undertaken only after work performance reports for all competency unit in Certificate III in Electrotechnology Data Communications (UTE 3 06 99) to indicate that relevant work is routinely being carried out autonomously and to requirements.
4 Relationship to competency standards	<p>This module assesses part of the critical knowledge and skills supporting the achievement of competency in units:</p> <p>NES105gA Install and terminate wiring systems - Cabling/Wiring support and protection</p> <p>NES105hA Install and terminate wiring systems - network communications</p> <p>NES105iA Install and terminate wiring systems - power and control – extra low voltage</p> <p>NES106fA Install electrical/electronic apparatus - data communications</p> <p>NES206fA Maintain and repair apparatus and associated circuits – data communications</p> <p>NES301fA Undertake commissioning procedures of apparatus and associated circuits - data communications</p> <p>NES402fA Test apparatus and circuits - data communications</p>
5 Content	<ol style="list-style-type: none"> 1. Working safely on a Data Communication System <ul style="list-style-type: none"> * Knowledge * Skills 2. Safe operation of a Data Communication System <ul style="list-style-type: none"> * Knowledge * Skills

	<p>3. Data Communication System Equipment</p> <ul style="list-style-type: none"> * Selection Components Accessories Cables <p>4. Protection methods and devices</p> <ul style="list-style-type: none"> * Operation Knowledge Skills
6 Assessment strategy	
Assessment methods	Assessment should be progressive reflecting a holistic approach to ensure the module purpose is met. To assist in ensuring validity, reliability and fairness assessment instruments should include practical exercises, assignments and written tests consisting of a number of item types, such as multiple choice, short answer and problem solving.
Conditions of assessment	Learning and assessment will take place in a classroom/laboratory environment.
7 Learning Outcome Details	
Learning Outcome 1	Demonstrate knowledge and skills for working safely with data communications systems.
Assessment criteria	<p>1.1 State the safety procedures to work on data communications systems, circuits and/or apparatus.</p> <p>1.2 Apply safe working practices.</p>
Learning Outcome 2	Demonstrate knowledge and skills for ensuring a data communications system, apparatus and/or associated circuits are safe to use.
Assessment criteria	<p>2.1 State and apply methods for ensuring data communications systems, apparatus and circuits are safe to use.</p> <p>2.2 Describe the minimum requirement for the design, construction and testing of a data communications system.</p>
Learning Outcome 3	Demonstrate knowledge and skills for selecting correct data communications system equipment – components, accessories and cables.
Assessment criteria	3.1 Apply methods for selecting equipment for a data communications system.
Learning Outcome 4	Demonstrate knowledge and skills to ensure data communications safety devices will operate as intended.
Assessment criteria	<p>4.1 Explain the features and characteristics of data communications safety systems.</p> <p>4.2 Apply a method for ensuring data communications safety systems will operate under fault conditions.</p>
8 Delivery of module	

Delivery strategy

Delivery strategies must be suitable for learning both theoretical and practical aspects described in the module purpose. It is considered that the most effective way to achieve this is by integration of theory and practice where students learn by experimentation, research and reports. It is recommended that learning and assessment be facilitated in a holistic manner that may require learning outcome sequence other than that indicated in the module.

Resource requirements

Resources should be sufficient to carry out learning activities on an individual basis.

Useful references include:

Held Gilbert, Understanding Data Communications

Held Gilbert, Sarch Ray, Data Communications

Stallings, Data and Computer Communications

Housley Trevor, Data Communications Teleprocessing Systems

Occupational Health and Safety Requirements

A safe and healthy environment will be provided for students and teachers as well as the particular safety procedures followed as part of the learning / teaching content.