

Domain	BROADCASTING	Unit ID:2259
Title:	Demonstrate an understanding of broadcasting technology	
Level: 3		Credits: 6

Purpose

This unit standard is intended for those who demonstrate an understanding of broadcasting technology. People credited with this unit standard are able to explain analogue audio broadcasting, describe digital audio broadcast technology, demonstrate an understanding of broadcasting sound system, describe and explain internet broadcasting, demonstrate an understanding analog terrestrial TV, demonstrate an understanding digital terrestrial TV.

This unit standard is intended for those who work in the broadcasting working environment.

Special Notes

1. Entry information:
2. Prerequisites:
 - *None*
3. To demonstrate competence, at a minimum, evidence is required of the use of telecom broadband technologies. The candidates should be able to: understand telecom network infrastructure; telecom broadband technologies and internet-based private network.
4. Assessment evidence may be collected from a real workplace or a simulated workplace in which broadcasting operations are carried out.
5. Tools and equipment may include but are not limited to computer, external devices, storage devices and basic computer applications.
6. Glossary of terms
 - *Broadband Technologies* - This refers to high-speed data transmission in which a single cable can carry a large amount of data at once.
 - *Private Networks* - Communication network owned by one or more firms for their exclusive use.
 - *PABX (Private Automated Branch Exchange)* - this telephone network is commonly used by call centres and other organizations. PABX allows a single access number to offer multiple lines to outside callers while providing a range of external lines to internal callers or staff.
 - *Front end* – is application, is one that application users interact with directly.

- *'Back end'* refers to an application or program serves indirectly in support of the front-end services, usually by being closer to the required resource or having the capability to communicate with the required resource.
7. Performance of all elements in this unit standard must comply with all relevant workplace requirements, operating and maintenance procedures associated with the use of the tools and equipment and /or manufacturer's, guidelines, instructions and specifications.
 8. Specifications 'refers to any, or all of the following: manufacturer's specifications, recommendations, specific instructions and specific task requirements.
 9. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act 2007 (Act no 11, 2007)
 - Telecommunications Act 2012
 - Search and surveillance Act 2012
 - Electricity (Safe) Regulations 2010
 - Workplace specific policies and regulations
 - Regulations relating to the health and Safety of employees at work under Schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments

Quality Assurance Requirements

This unit standard and others within this sub-field may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority on www.namqa.org and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Explain analogue audio broadcasting

Performance Criteria

- 1.1 Frequency band and wave length are described and explained.
- 1.2 Analogue radio functions are described.
- 1.3 Amplitude Modulation (AM) is explained.
- 1.4 Frequency Modulation (FM) is explained.
- 1.5 Transmitting equipment are identified and described.

Element 2: Describe digital audio broadcast technology

Performance Criteria

- 2.1 Digital audio broadcasting features are explained.

- 2.2 Digital audio receiver functions are outlined.
- 2.3 Transmitting equipment is described.
- 2.4 Conversion of analogue to digital signal is explained.

Element 3: Demonstrate an understanding of broadcasting sound system

Performance Criteria

- 3.1 Digital Audio recorder features and functions are described.
- 3.2 Amplifiers features and functions are described.
- 3.3 Switching features and functions are described.
- 3.4 Receiver features and functions are described.

Element 4: Describe and explain Internet broadcasting

Range

Streaming applications may include but not limited to DaCast and NCH Input source may include but not limited to cell phone, camera and decoder Audio player may include but not limited to VLC and Window Media Player Video iframe May include but not limited to html5

Performance Criteria

- 4.1 Radio and TV streaming is explained.
- 4.2 Streaming applications are explained.
- 4.3 Input source are explained.
- 4.4 Audio player are explained.
- 4.5 Video i-frame is described and explained.

Element 5: Demonstrate an understanding analog terrestrial TV

Performance Criteria

- 5.1 Analog TV features are explained.
- 5.2 Transmission techniques are described.
- 5.3 Traditional analog television functions are described.

Element 6: Demonstrate an understanding digital terrestrial TV

Performance Criteria

- 6.1 Digital TV features are explained.
- 6.2 Transmission techniques are described.
- 6.3 Digital Terrestrial Television (DTTV) functions are outlined.
- 6.4 High Definition Television (HDTV) features are explained.

Registration Data

Subfield:	Information and Communication Technology
Date first registered:	30 July 2020
Date this version registered:	30 July 2020
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Body responsible for review:	Namibia Training Authority