



City & Guilds 3667-03

Level 3 Certificate in Design & Planning Communications Networks

This course is aimed at new entrants, e.g. cable installers or for those looking to enhance their promotion prospects. It is also suitable for learners career progression within the industry. The level 3 in Design & Planning Communications Networks combines the study of current telecommunications and networks, planning and management. This qualification also provides progression for learners who have completed the City & Guilds 3667-02 Award in Communication Cabling

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Level 3 Certificate in Design & Planning Communication Networks

UNIT 1

Concepts of Designing & Planning a Communications Infrastructure

COURSE CONTENT

- Terms used and different types of communications infrastructure
- Principles of planning
- UK Licenses, legislation and codes of practice
- Project management tools

Common & Network Infrastructures & Terms Used

- Common terms used
- Communication infrastructures
- Infrastructures environments
- Network classes

Planning Concepts

- Role of infrastructures
- Reasons for planning
- Drivers for planning
- Annual charges and costs
- Inherent construction and maintenance costs

Importance of UK 3rd Party Issues

- Wayleave and 3rd party issues
- 3rd party impacts on a project
- Preliminary surveys
- Use of a detailed survey
- Importance of routes to programmed delivery costs

Legislation & Regulations

- Acts of parliament & relevance upon infrastructure planning
- Operators license conditions
- Codes or practice and standards
- Health & safety legislation

Customer Needs in Regard to an Engineering Scope of Works

- Importance of customer requests in an engineering requirement
- Identifying sources of information useful to design and planning of a telecoms infrastructure

Project Management Tools, Techniques and Other Supporting Documentation

- Suitable diagrammatic representation and how its used in the construction process
- Critical path
- Records involved
- Geographical and non-geographical record
- Advantages & disadvantages of digital media

Exams & Assessment Method

- City & Guilds 15 questions written exam

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UNIT 2

Designing & Planning for an Internal Network Cabling Infrastructure

COURSE CONTENT

- Site Survey - Internal Network Cabling Infrastructure (NCI)
- NCI - Provision options and optimum routes
- NCI Designs

Site Surveys

- Systems, areas, data and equipment required
- Plans & records of areas to be surveyed
- Constraints to systems and equipment
- Health & safety issues
- Variations and accurate recording

Optional Provisions & Optimum Routes

- Relevant legislation, regulations and organizational obligations
- Options & costing
- Forecasts
- Obtaining authority
- Principles of risk, cost benefit and sensitivity analysis

Design - Internal Network Cabling Infrastructure

- Produce designs and identify components
- Hazards
- Types of internal network cabling infrastructure
- Constraints & limitations
- Legislation & regulations
- Network Infrastructure - duct, chamber, joints, etc.

Detailed Plans

- Work activities
- Costing
- Potential risks
- Methods of assessing
- Financial confidentiality

Co-ordinating Provisions

- Work programs
- Resource management
- Critical path activities
- Safety & quality standards
- Timescales

Legislation & Regulations

- Radio frequency allocation
- Planning authority
- Highways authority

Exam & Assessment Method

- Assessed design project

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UNIT 3

Designing & Planning for an External Overhead Network Cabling Infrastructure

COURSE CONTENT

- Site Survey - External overhead telecoms infrastructure
- Preliminary, provisional and detailed designs for an external overhead communications cabling infrastructure
- Determining workflow activities

Site Surveys

- Systems, areas, data and equipment required
- Plans & records of areas to be surveyed
- Constraints to systems and equipment
- Health & safety issues
- Variations and accurate recording
- Hazardous environments

Preliminary Designs & Provisions

- Planning & collating information
- Budgets calculation
- Forecasts
- Obtaining authority
- Telecoms infrastructure capability
- Emerging technology

Design - Internal Network Cabling Infrastructure

- Produce designs and identify components
- Hazards
- Types of internal network cabling infrastructure
- Constraints & limitations
- Legislation & regulations
- Network Infrastructure - duct, chamber, joints, etc.

Detailed Plans

- Work activities
- Costing
- Potential risks
- Methods of assessing
- Financial confidentiality

Co-ordinating Provisions

- Work programs
- Resource management
- Critical path activities
- Safety & quality standards
- Timescales

Legislation & Regulations

- Radio frequency allocation
- Planning authority
- Highways authority

Exam & Assessment Method

- Assessed design project

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Level 3 Certificate in Design & Planning Communication Networks

UNIT 4

Designing & Planning for an External Underground Network Cabling Infrastructure

COURSE CONTENT

- Site Survey - External underground telecoms infrastructure
- Preliminary, provisional and detailed designs for an external underground communications cabling infrastructure
- Determining workflow activities

Site Surveys

- Systems, areas, data and equipment required
- Plans & records of areas to be surveyed
- Constraints to systems and equipment
- Health & safety issues
- Variations and accurate recording
- Hazardous environments

Preliminary Designs & Provisions

- Planning & collating information
- Budgets calculation
- Forecasts
- Obtaining authority
- Telecoms infrastructure capability
- Emerging technology

Design - Internal Network Cabling Infrastructure

- Produce designs and identify components
- Hazards
- Types of internal network cabling infrastructure
- Constraints & limitations
- Legislation & regulations
- Network Infrastructure - duct, chamber, joints, etc.

Detailed Plans

- Work activities
- Costing
- Potential risks
- Methods of assessing
- Financial confidentiality

Co-ordinating Provisions

- Work programs
- Resource management
- Critical path activities
- Safety & quality standards
- Timescales

Legislation & Regulations

- Radio frequency allocation
- Planning authority
- Highways authority

Exam & Assessment Method

- Assessed design project