# Tywi Centre Courses

## www.tywicentre.org



## **Heritage Construction Training**



TYWI CENTRE

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# The Tywi Centre

The Tywi Centre has been delivering heritage construction training throughout Wales since it was established in 2009. Over the last decade it has built up a reputation for delivering high quality, engaging training, by experts with extensive knowledge in the field of heritage construction.

This has been achieved through:

- Delivering NVQ3 Specialist Applied Skills Programmes (SAPs) in heritage plastering, carpentry and stonemasonry, providing off-site training and accreditation to skilled people employed in construction. Delivered in association with CITBs National Specialist Accreditation Centre.
- Delivering NVQ3 assessment in heritage plastering, carpentry and stonemasonry via the OSAT route, in association with the Heritage Construction in Wales Project.

- Working with construction companies to identify and deliver training to meet their specific needs.
- Becoming a CITB Approved Training Organisation.
- Working with Further Education Colleges across Wales developing and delivering heritage training to support Level 1, 2 and 3 construction learners.
- Working with Qualification Wales and City and Guilds to develop the new construction college curriculum, due to be rolled out in September 2021.
- Supporting Cadw and Historic England in their training programmes and education projects.
  For example, through developing and delivering the Cadw skills

development programme for disadvantaged communities and delivering training at Shrewsbury Flaxmill Maltings.

- Being a leader in Wales for the promotion and sharing of heritage construction knowledge through holding a series of conferences and CPD events. Subjects have included: energy efficiency in pre-1919 buildings; reuse of redundant ecclesiastical buildings; and mainstreaming heritage.
- Developing and delivering a suite of CPD courses for specifiers, such as Heritage Impact Assessments and Undertaking Window Condition Surveys.

To find out more about the Tywi Centre please visit our website www.tywicentre.org



# Approved Training Organisation

The Tywi Centre are an Approved Training Organisation (ATO) for the **Construction Industry Training Board** (CITB). ATO's are recognised by CITB

as training providers that consistently deliver high quality training to a defined and industry-agreed training standard.

Funding for Training

Companies that are registered with CITB are able to access funding for training that is delivered by ATOs. For full details of available grant and funding please visit https://www.citb.co.uk/levy-grantsand-funding/grants-funding/

The funding that is most relevant to the courses that the Tywi Centre offer are:

#### 1. Short Course Grants (SCG)

SCGs are paid per candidate for the achievement of short duration courses which align to approved constructionrelated standards. Each of the courses listed in this brochure fit into this category.

CITB pay grants at 3 tiered rates. The tier is determined by CITB based on the duration and content of the course:

- Tier 1 is £30
- Tier 2 is £70
- Tier 3 is £120

The tier relating to each of our course can be found in the summary tables on page 5.

#### 2. Skills and Training Fund

currently deliver.

The skills and training fund aims to help companies to access high quality learning and development experiences for thier employees. CITB registered employers can apply for funding for recognised courses delivered by ATO's. The amount of funding available to companies relates to how many direct employees they have. Your local CITB Advisor can offer support in your 'Skills and Training' fund application.







This brochure provides details of all of the ATO courses that the Tywi Centre

## Course costs 🛃

The tables on page 5 include the cost for the delivery of each course. The cost is per course, not per person. The



cost is based on delivery at the Tywi Centre. It is possible for us to deliver training at alternative venues and

locations but there would then be an additional charge for tutor travel and subsistence.

## Dates for Training

The Tywi Centre delivers bespoke training to meet the needs of our clients. We can arrange a course at our Centre in Llandeilo or at a location and date that fits in with your work

schedule. Please get in touch to discuss the training needs of your company, organisation or training group.

If you would prefer to join a course that has been scheduled by the Tywi Centre, please see our website for dates and individual prices.

## Our Tutors

Tom Duxbury (Tywi Centre) - Tom has over 30 years in the construction industry running a specialist joinery and construction business. Tom is a Licentiate Member of the City & Guilds and in 2010 graduated with a first-class honours degree in Building Conservation and Management.

Tom is a heritage skills trainer and assessor and works as a Conservation Officer for Carmarthenshire County Council and Brecon Beacons National Park.

Nell Hellier- (Tywi Centre) - Senior Built Heritage Officer for Carmarthenshire County Council.

**Oliver Coe and Thom Evans (Coe Stone** 

Ltd.) - Oliver and Thom have an impressive, current portfolio of prestigious restoration projects including Llandaff Cathedral, Glynn Vivian Art Gallery and Cardigan Castle. Oliver and Thom have extensive knowledge and experience relating to all aspects of masonry work.

Joe Moriarty (The Lime house traditional building and plastering) - Joe has worked as a plasterer for over 20 years and has specialised in Heritage Plastering and lime work for the past 7 years. Joe has recently achieved a MSc. Qualification in Sustainable Building Conservation from the Welsh School of Architecture.



## Summary tables of all courses

All of the courses will be delivered according to the standards set out by CITB. With some courses it is possible to develop and tailor the content to meet specific, bespoke training needs.



Course title	CITB GET Code	SCG rate per learner	Details- Page number	Duration in days	Cost for delivery at Tywi Centre- per course
Level 3 Award in the Repair and Maintenance of Traditional (pre-1919) buildings (This course is also available through the Heritage Construction in Wales project at a cost of £40 per person)	GET0299	£70	4	2	£1,700
Introduction to working with lime in buildings	GET2226	£70	5	3	£1,620
Advanced techniques for working with lime in buildings	GET2225	£120	6	5	£2,487
Lime and lime based mortars	GET0516	£70	7	2	£1,082
Surveying timber and dampness in buildings	GET2147	£30	8	1	£530
Architectural recognition	GET2092	£30	134	2	£785

## Summary of **PLASTERING** Courses

Course title	CITB GET Code	SCG rate per learner	Details- Page number	Duration in days	Cost for delivery at Tywi Centre- per course
Selection and mixing of materials for interior and exterior work	GET0536	£70	9	3	£1,620
Production of Solid plastered surfaces	GET0534	£120	10	5	£2,487
Conservation of solid plastered surfaces	GET0531	£120	10	5	£2,487
Fibrous plasterwork (this 5-day course consists of 4 individual training modules)	GET0530 GET0532 GET0533 GET0535	£70 £70 £70 £70	11	5	£3,200

## Summary of **CARPENTRY** Courses

Course title	CITB GET Code	SCG rate per learner	Details- Page number	Duration in days	Cost for delivery at Tywi Centre- per course
Bench joinery; workshop and on site	GET2137	£120	12	5	£2,858
Heavy timber framework	GET2094	£70	13	5	£2,858
Conservation or restoration of timber-based products	GET2093	£70	14	2	£785
Defect recognition; cause and effect for heritage wood occupations	GET2077	£30	14	1	£530
Material identification for heritage wood occupations	GET2095	£70	15	2	£785
Specialist techniques for heritage wood occupations	GET2078	£70	15	1	£530

## Summary of HERITAGE STONEMASONRY Courses

Course title	CITB GET Code	SCG rate per learner	Details- Page number	Duration in days	Cost for delivery at Tywi Centre- per course
Identification of materials	GET1098	£30	16	2	£1,268
Defect recognition; cause and effect for heritage stonemasonry	GET1099	£30	16	1	£813
Stonework conservation; repair and maintenance	GET0537	£120	16	5	£2,858
Specialist techniques	GET1100	£30	17	1	£813

## Detailed information for General Heritage and Lime Courses



## Level 3 Award in the Repair and Maintenance of Traditional (pre-1919) buildings (2 days)

#### Overview

This accredited course is an indispensable addition to the CPD portfolio of anyone who works within the construction or heritage construction industry. Through both theoretical and practical sessions the course covers the most critical areas of knowledge required before working on old buildings. The knowledgeable and experienced tutors use site visits and practical demonstrations to enable candidates to put their learning into real life context.

The training can be adapted to focus on a particular trade area such as carpentry, plastering or masonry or it can be more general, depending on the requirements of the candidate group.

#### Summary of content

- Significance and sustainability- why old buildings are important to our past present and future
- Mechanics of old buildings
- Lime and breathability
- Practical demonstrations relating to lime science, types of lime, mixes and aggregates
- Building defects- causes and appropriate materials and methods for repair
- Building defects- site visits to look at good and bad examples of repair work
- Legislation, definitions and roles
- Planning work on historic building
- Specialist investigation techniques
- Principles of alteration
- Low carbon and historic buildings

#### Who should attend?

This training is suitable for anyone who works in the construction or heritage construction industry including contractors and specifiers.

**NOTE:** this course is also available through the Heritage Construction in Wales project at a cost of £40 per person. Dates for these subsidised courses can be found on the Tywi Centre website:

www.tywicentre.gov.uk

### Introduction to working with lime in buildings (3-days)

#### Overview

Lime is the binder in almost all traditional mortars, plasters and renders. It is also increasingly popular as a material for new building projects. The wide range of lime products available on the market present us with a pallet of possibilities. This training module is intended to introduce the different types of lime, the choice of aggregates and additives and the selection of the appropriate combination to suit the task. The training will include practical elements such as mixing, application and aftercare. This course can be delivered at the Tywi Centre or at a site that is relevant to the candidates.

#### Summary of content

- Working on conservation and historic repair projects
- Discovering the mechanics of old buildings
- Understanding lime Lime science and the lime cycle
- Types of lime including putty, natural hydraulic lime, cork and hemp lime and hot mixed lime
- · Health and safety specific to lime

- Additives hair, pozzolans, mesh/ scrim
- Aggregates
- Analysis of mortars
- Mixing methods
- Application to different backgrounds
- Practical sessions

#### Who should attend?

This course is suitable for anyone who has experience of working in construction- either heritage or modern. Site managers, plasterers and masons who are working on historic buildings would find this of real value.

### Advanced techniques for working with lime in buildings (5-days)

#### Overview

Lime is the binder in almost all traditional mortars, plasters and renders. It is also increasingly popular as a material for new building projects. The wide range of lime products available on the market present us with a pallet of possibilities. This training module, is intended to provide an introduction to the different types of lime, the choice of aggregates and additives and the selection of the appropriate combination to suit the job. The training will include practical elements such as mixing, application and aftercare. This course can be delivered at the Tywi Centre or at a site that is relevant to the candidates.

Although the course content is similar to 'Introduction to working with lime in buildings', this training includes a module on conservation and repair of fibrous/ decorative plasterwork and mouldings.

#### Summary of content

- Working on conservation and historic repair projects
- Discovering the mechanics of old buildings
- Understanding lime Lime science and the lime cycle, types of lime
- Health and safety specific to lime
- Additives hair, pozzolans, mesh/ scrim

- Aggregates
- Mixing methods
- Application to different backgrounds
- Carrying out repair work to existing plasters and mouldings
- Materials used for the production and repair of fibrous plasterwork.
- Practical sessions

#### Who should attend?

This course is suitable for anyone who has experience of working in construction- either heritage or modern. Site managers, plasterers and masons who are working on historic buildings would find this of real value.

#### Lime and lime based mortars (2-days)

#### Overview

This course is intended to provide the candidate the understanding of working with lime-based mortars when building with or making repairs to traditional masonry, stonework and brickwork. It offers a balanced mix of theoretical and practical training.

#### Summary of content

- Properties of lime
- Lime: strengths, uses, limitations, manufacture, hybrid mixes.

- Hot mixed lime.
- Sand, aggregates and additives.
- Setting: carbonation, the lime cycle, environmental benefits.
- Mixing methods and guidelines.
- Building with stone dry stone, mortared masonry, random rubble, dressed stone.
- Additives: pozzolans, hair, mesh reinforcement.
- Preparation of site, working area, stone, aftercare.
- Tools traditional and modern.

- Winter working with lime.
- Specifying mortars.
- Mortar analysis.
- Consolidation, repairs and pointing

#### Who should attend?

This course is suitable for anyone who has experience of working in construction- either heritage or modern. It is particularly relevant to those working with masonry with a drive to learn more about traditional materials and methods.



### Surveying timber and dampness in buildings (1-day)

#### Overview

The timbers in buildings decay and rot because of adverse environmental conditions such as water leaks and prolonged damp or wetness. The purpose of this course is to provide candidates with the knowledge to identify, resolve and report problems relating to dampness and timber decay in buildings. The scope of this standard covers:

- Condensation and dampness: causes, diagnostics, and treatment options
- Timber: biology, decay, and insects
- Legal aspects, health and safety, survey methodology, and report writing

#### Summary of content

- Causes of dampness in buildings
- Effects of dampness in buildings
- Diagnosis and methods of treatment of rising damp
- Surveying procedures-methods of measuring and assessing moisture
- Understanding traditional construction methods with a focus on timber elements
- Wood borers and fungi
- Treatment methods of timber infestations and fungal decay
- Preservative types and application
- Legislation, responsibilities and liabilities
- Health & safety implementation

 Survey report function and its content

#### Who should attend?

This course is suitable for anyone who has experience of working in construction- either heritage or modern. It is particularly relevant to those working in Wood Occupations and would be of real value to surveyors and architects.

#### Architectural recognition (2-days)

#### Overview

This course will provide the key underpinning knowledge and in-depth understanding of the architectural development of the buildings of the United Kingdom. It will support learners in developing their understanding of the history of construction and how styles have evolved over time.

#### Summary of content

The content of the course will include:

- Understanding Architectural Styles: Gothic; Earth Construction; Timber Frame and types of in-fill; Classical; The Renaissance; The Arts and Crafts movements.
- Understanding progressions through ages: Roman; Saxon; Norman; Medieval; Tudor; Jacobean; Restoration; Flemish Influence; Georgian; Victorian; Modern (20th

#### Century)

• Understanding the vernacular and polite definition of architectural type

#### Who should attend?

This course is an essential component of the NVQ Level 3 Heritage Wood Occupations but is also extremely relevant to specifiers and planners undertaking assessments of a building's historic significance.



## Detailed information for Heritage Plastering Courses



The following courses are suitable for candidates who have completed NVQ2 in plastering or have equivalent experience of working within the plastering trade. The courses in this section support the knowledge element of the Heritage Plastering NVQ3. For full details of the NVQ3 Specialist Applied Skills Programme or OSAT please visit www.tywicentre.org.uk

### Selection and mixing of materials for internal and external plastering work (3-days)

The use of lime plasters and renders is central to successful maintenance and repair of traditional buildings. An understanding of lime essential is to anyone working on historic buildings. With a wide range of lime products available on the market, this training course will provide a solid understanding of different types of lime. It will also cover the selection of appropriate aggregates as this is vital in determining the appearance and performance of lime plasters. This course will also help you to determine the appropriate mix of lime binders and additives and assessing the appropriate combination to suit the task. The course will include:

• Understanding lime - lime science

and the lime cycle, types of lime

- Health and safety specific to lime
- Additives hair, pozzolans, mesh/ scrim
- Aggregates
- Analysis of mortars
- Mixing methods
- Application to different backgrounds- laths, stone, brick
- Practical sessions

## Production of Solid plastered surfaces (5-days)

Most traditional buildings were finished in lime mortars externally and lime washed to provide both decoration and protection. This course will enable you to apply a variety of both external and internal lime finishes. These include formal 'lined out' work to less formal textured finishes to a wide range of background types including lath, stone and brick. You will learn how to match traditional and existing finishes. This course will



allow you to learn about mixing and application methods and the range of materials available for the reinstatement of traditional lime finishes and for new build applications.

- Preparation of various surfaces
- Sequencing work for application of internal and external plasterwork
- Application and finish of internal and external plasterwork in one, two

and three coat work on a variety of surfaces:

- vertical
- inclined
- curved
- horizontal
- ceilings
- internal and external angles
- Finishing surfaces to the appropriate style and textured finish
- Replication of textured finishes





### **Conservation of solid plastered surfaces (5-days)**

The character of many historic buildings is largely contributed by the finish applied to its walls. Inadequate protection from the elements together with the lack of maintenance will invariably result in the failure of old renders and internal plasterwork. This module will investigate ways of protecting and making appropriate repairs when conserving or restoring solid plaster surfaces:

The course content will include:

- Recording and surveying condition of exiting plasterwork
- Safe strategies for the removal of damaged plasterwork
- Removal and repair of timber lathing and plaster

- Methods of providing adequate key on various backgrounds
- Raking out and repairing cracks
- Materials and methods used to stabilise plasterwork
- Methods for securing loose plaster using mechanical fixings or grouting
- Selection of appropriate materials and mixes for repair and patching
- Protection of work and aftercare

### Fibrous and decorative plasterwork (5-days)

Fibrous plaster is a form of decorative plasterwork composed predominantly of Plaster of Paris, reinforced with layers of hessian and secured within a timber framework. A decorative cornice run in-situ was a traditional way of forming a moulding, onsite, in a room at its ceiling to wall junction. In-situ mouldings could be formed in lime sand mortar, lime putty, or gauged setting stuff. This module will investigate methods of protecting and making appropriate repairs when conserving or restoring fibrous and decorative plasterwork.

This 5-day course is made up of 4 modules that are delivered together. The modules are:

## Selection and mixing materials for fibrous and decorative plasters

• Selection of reinforcement for use in



casting (including timber laths, glass fibre strands, wire and jute scrim)

- Selection of plaster (including superfine, fine or standard casting plaster)
- Working with lime putty and gauged mixes
- Use of retardants
- Sequence for mixing

## Production of fibrous plasterwork and running in-situ moulds

- Read and carryout instructions from given information
- Replicate and reproduce existing mouldings
- Cast moulding sections and clean and finish cast moulded sections
- Replicate and run in-situ sections and carry out repairs

#### Installation of fibrous plasterwork

• Selecting from range of fixing

methods depending on position of fibrous plaster

- Provision of secondary support system
- Calculations and measurements
- Preparation and use of reinforcing materials
- Setting out working areas for cornice and mouldings

#### **Conservation of fibrous plasterwork**

- Understanding the style and period of plasterwork
- Common causes of failure in fibrous plaster
- Survey and recording
- Health, safety and legal requirements
- Repair techniques- methods used to stabilise and restore and producing enrichments and mouldings to conserve original style



## Detailed information for Heritage **Carpentry Courses**



The following courses are suitable for candidates who have completed NVQ2 in carpentry or have equivalent experience of working within the carpentry trade. The courses in this section support the knowledge element of the Heritage Wood Occupations NVQ3. For full details of the NVQ3 Specialist Applied Skills Programme or OSAT please visit www.tywicentre.org.uk

### Bench joinery; workshop and on site (5-days)

Traditional joinery, has changed little over the centuries; the timber and tools used for cutting, shaping and forming the joints, predominantly using only wood elements, remains in a form that our forefathers would be familiar with.

The physical appearance of a joint together with its strength and durability are determined by the joining methods and how they are used in specific joints.

The course is aimed at delivering, an understanding and recognition of

those traditional techniques that will enable a candidate to produce and repair a wide range of joinery products, through a balanced combination of classroom and workshop teaching.

Candidates will work on a real restoration project (for example the repair and re-instatement of traditional sliding sash windows) carried out on-site and in the workshops.

The Learning outcomes include:

Tools of the trade; selection,

storage, sharpening, care and maintenance

- Shaping and milling
- An understanding of heritage timber detailing
- Knowledge of general on-site joinery repairs; measuring and scribing
- Making and using jigs
- Manufacturing complex shaped and bespoke bench joinery products using old tools and new
- Installation of bench joinery (in a historical context)

Timbers and the hand tools used to cut and form joints have not changed much over the centuries. This course aims to teach candidates about the evolution and history of timberframed structures, the selection and orientation of appropriate timber, identification of defects, and an understanding of when repairs are needed and how to conserve or repair

them effectively.

Candidates will be provided with a restoration project upon which the teaching and practical work will be based.

Heavy timber framework (5-days)

- Component identification
- Conserving or restoring on site; oak or similar frameworks
- Sharpening, care and maintenance for the tools of the trade

- Timber orientation, setting out and plumb scribing
- Production of types of joint and methods of cutting
- The history of heavy timber framework
- Selection of timber and shrinkage

### Conservation or restoration of timber-based products (2-days)

Carpenters and joiners work on a diverse range of tasks associated with our traditional buildings; from a cut roof to repairing a sash window. All of which require an understanding of the significance of those elements, a recognition of appropriate and inappropriate materials and methods of sequencing repairs and alterations in a safe manner.

This course is intended to focus on the candidate being able to use technical

information and resources in the conservation or restoration of timberbased products.

The content of the course will include:

- Recognising historical significance and carrying out reversible alterations
- Heritage Impact assessments
- Understanding appropriate methods and the establishment of a safe culture on sire to protect the heritage and its context

- Programming, preparation, planning and working to time allocations
- Recognising previous interventions
- Understanding effects of changes to buildings
- Explain styles of joints, their agerelated nature
- Fixing techniques
- Load bearing and non-load bearing elements
- Understanding structure

### Defect recognition; cause and effect for heritage wood occupations (1-day)

Defects in timber can be naturally occurring or caused by the conversion or drying methods employed. In buildings, decay and rot can occur because of adverse environmental conditions such as water leaks and prolonged damp or wetness or be due to inappropriate timber selection. The purpose of this course is to provide candidates with the knowledge to identify, resolve and report problems relating to timber defects and decay in buildings.

The content of the course will include:

- Being able to Identify damage and inappropriate materials
- Recognise and understand condensation and dampness: causes and diagnostics
- Understanding effects of damp on woodwork and its treatment
- Recognising dry rot and its treatment
- Recognising Insect attack and identifying suitable treatment options

### Material identification for heritage wood occupations (2-days)

Although timber, as a material, has changed little over the centuries the availability of both home-grown and imported timber, as well as the introduction of engineered timber products, has increased the need for an understanding in the recognition of traditional timbers and their uses. This course is intended to focus on the candidate being able to identify and describe a range of materials associated with heritage woodwork.

- identifying and describing a range of timber-based components in heritage work and the science of their origin
- identifying and describing soft and hard woods including their sources, properties, recognition, differences and uses
- recognising quality and versatilityselecting and quantifying the required resources

- identifying and describing ironmongery
- identifying and describing traditional adhesives and finishes

### Specialist techniques for heritage wood occupations (1-day)

Understanding plans, drawings and specifications is essential in ensuring that repair work is undertaken according to the requirements of a contract. This course will enable learners to interpret drawings accurately in preparation for any new or repair work to timber structures or joinery units.

- Reading plans and specificationinterpreting and extracting information
- Dissemination of information, identifying discrepancies and procedure for further action
- How to draw- geometry, Pythagoras' theorem, basic trigonometry
- Setting out datum and complicated carpentry structures
- Measuring instruments old and new







## Detailed information on Heritage Stonemasonry Courses



The following courses are suitable for candidates who have completed NVQ2 in stonemasonry or brickwork or have equivalent experience of working within the masonry trades. The courses in this section support the knowledge element of the Heritage Stonemasonry NVQ3. For full details of the NVQ3 OSAT please visit www.tywicentre.org.uk

#### Identification of materials- Stonemasonry (2-days)

Understanding the use, composition and application of lime and clay mortars is central to successful maintenance and repair of traditional buildings. With a wide range of lime products available on the market, this training course will provide a solid understanding of different types of lime and their appropriate use. It will also cover the selection of aggregates as this is vital in determining the appearance and performance of traditional lime and clay mortars. This course will also help you to determine the appropriate mix of lime binders and additives and assessing the appropriate combination to suit the task.

The content of the course will include: • The range of stone and brick used in

 The range of stone and brick used i heritage work

- Lime mortars and the lime cycle
- Use of earth and clay
- Lime wash
- Lime putty
- Roman Cement
- Aggregates and pozzolans
- Modern breathable materials
- Storing materials
- Salvaging re-usable materials

#### Defect recognition: cause and effect for heritage stonemasonry (1-day)

For buildings which have been standing for 100 years or more, wear and tear, patina and features out of plumb can all contribute to their historic character. However, understanding when a character trait becomes more of a defect and consequentially a risk to the stability and sustainability of the building, is something that is essential for a stonemason to appreciate. This course will investigate damage caused to a building through weathering, chemical attack and movement and discuss appropriate interventions to prevent further decay.

The content of the course will include: • Identify damage and inappropriate

materials

- Staining and salt activity
- Weathering
- Structural
- Inappropriate interventions
- Decaying/ rusting ironwork
- Site visit to illustrate defects



### Stonework conservation; repair and maintenance (5-day)

This course is appropriate for learners who have experience of working with brick as well as for established stonemasons. On completion it will enable learners to undertake repairs to historic stone walls using methods appropriate to the original wall construction. It will include repairs and fixing on rubble, semi-dressed and dressed walls, however, it will not include any banker or carving work.

The course content will include:

- Recognition of historical significance and carrying out reversible alterations and impact assessments
- Recognising previous interventions
- Tools of the trade
- Types of shoring
- Types of foundation
- Construction joints used in masonry structures
- Different types of walling construction

- Projecting courses
- Consolidation
- Grouting
- Resins, reinforcements fixing, support fixing and reconstituted stone
- Fixing structural anchors
- Tamping and pointing
- Cutting out defective mortar

Understanding plans, drawings and specifications is essential in ensuring that repair work is undertaken according to the requirements of a contract. This course will enable learners to interpret drawings accurately in preparation for any new or repair work to masonry structures.

### Specialist techniques (1-day)

- Reading from plans and specifications
- Disseminating information, identifying discrepancies and the procedures for further actions
- Scale drawings

- Setting out datums and complicated stonemasonry structures
- Measuring tools and instruments old and new.



