

## Plumbing, Heating & Gas Industry Course Information

How to find us

[www.cityofglasgowcollege.ac.uk](http://www.cityofglasgowcollege.ac.uk)



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# Why choose City of Glasgow College?

- No VAT - City of Glasgow College is VAT exempt
- Most courses available in the evening - at NO extra cost
- ILA Funding information - available on request
- City Centre Location - easy access by public transport  
City Campus North Hanover Street (see map)
- All training materials/books are included in the course cost

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For more information on any of the courses in this brochure please contact us on 0141 565 2816 / [energy@cityofglasgowcollege.ac.uk](mailto:energy@cityofglasgowcollege.ac.uk)

Additional information is available on our website [www.cityofglasgowcollege.ac.uk](http://www.cityofglasgowcollege.ac.uk)



## City & Guilds Domestic Natural Gas Installation & Maintenance S/NVQ 6012 - ACS Aligned Level 3

This Modern Apprenticeship course should be of interest to all Plumbing, Heating, Gas Installation & Servicing companies.

If you are Plumbing and Heating company trying to break into any gas contract work for installation, servicing and maintenance you could greatly enhance your business opportunities by placing your apprentices on this course. In addition to your apprentice

gaining various basic plumbing skills they would also have achieved a higher level of gas competence.

Full course training funding is available for this course and is at no expense to the employer. The cost of gaining the relevant ACS accreditation is also included within these course fees and does not incur any additional costs or charges.

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**This course is a 3 year Apprenticeship and includes topics such as:**

- Pipe-work installation techniques.
- Introduction to sanitary plumbing
- Hot and cold water supplies.
- Open and unvented hot water systems.
- Installation design, commissioning and servicing of central heating systems, central heating boilers and combination boilers.
- Fault finding of central heating systems, central heating boilers and combination boilers.
- Understanding flue gas analysis.
- Introduction to emergent renewable technology. (Solar Hot Water, Heat Pumps etc.)
- Electrical safety and appliance fault finding.
- Gas technology and utilisation.
- Installation design, commissioning and servicing of domestic gas appliances such as Gas Fires, Gas Cookers, Warm Air Heaters etc.
- Fault finding on domestic gas appliances such as Gas Fires, Gas Cookers, Warm Air Heaters etc.
- Installation and removal of gas meters.
- Building and construction technology.
- Health and safety.
- First aid.
- Customer relations.
- Promoting environmental awareness within the workplace.

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Please check our website for more information [www.cityofglasgowcollege.ac.uk](http://www.cityofglasgowcollege.ac.uk)



## ACS Gas Safety

City of Glasgow College offers training and assessments for operatives who already hold ACS certification or those attempting to gain ACS certification for the first time. Our ACS gas training and assessment programs have been specifically designed for current Gas Safe (formerly CORGI) Registered gas engineers, plumbers and heating engineers who have to renew their ACS Gas qualifications (once every 5 years). City of Glasgow College (formerly Glasgow College of Building & Printing / Glasgow Metropolitan College) has been delivering courses in

Domestic Gas for over 40 years. All City of Glasgow College staff delivering ACS training and assessments come from a gas industry background, have comprehensive industrial experience and keep themselves up to date with the various developments within the industry.

While we would recommend that all students make use of the training courses available, students may opt to progress direct to the assessment stage without training. Our ACS gas assessments are certificated through CSkills (CITB).

# ACS Frequently Asked Questions

## Can I sit the Gas ACS courses if I do not have any prior qualifications or experience within the domestic gas industry?

The short answer is no. Existing gas operatives are required to obtain qualifications under the Accredited Certification Scheme (ACS) which is regulated by the United Kingdom Accreditation Services (UKAS). These qualifications must be renewed every five years. These ACS qualifications are for operatives who currently hold or have held appropriate gas safety certification or qualifications. However, there are 'stepping-stone' courses such as 'Foundation Gas' that can help along the way to become eligible to be assessed under the ACS certification criteria. See Intermediate/foundation Domestic Gas Course details which follow on page 14.

## Which assessment is right for me initial assessment or re-assessment?

If your current ACS qualification has not expired (or has expired by less than 1 year) then you are eligible for an ACS re-assessment which is shorter in duration (and cheaper) than the full assessment. If it has expired by more than a year or you are extending your scope of work then you will need to complete the full initial assessment.

## Can I take an ACS re-assessment if I have not done any ACS assessments?

If you have not undertaken any ACS assessments or do not hold a currently valid ACS assessment element then you will not

be eligible for a re-assessment. If however you have a valid aligned gas services S/NVQ certificate this will be accepted as a pre-requisite for re-assessments (Ask centre for details if you think this applies.)

## How do I get Gas Safe registration? Is it included?

On successful completion of the ACS assessments relevant to the work you undertake, you will be eligible to apply to Gas Safe for registration.

## When does the next course start?

We run our courses to demand (evenings and weekdays), so have courses starting regularly throughout the year. Please contact us for details of upcoming course dates - Contact us on 0141 565 2816 [energy@cityofglasgowcollege.ac.uk](mailto:energy@cityofglasgowcollege.ac.uk)



# ACS Domestic Course Training Details

Training is optional for all of these courses. Operatives can undertake assessment only.

At City of Glasgow College there are various ACS qualifications available:

**CCN1** - Core Domestic Gas Safety (With effect from April 1st 2012, the Combustion Performance Analysis (CPA1) module is included within CCN1)

**CCN1** Training consists of practical and written training followed by assessments covering:

- Gas safety legislation
- Gas emergency actions and procedures
- Characteristics of combustion
- Ventilation
- Installation of pipe-work and fittings
- Test for tightness
- Checking and/or setting meter regulators
- Identification of unsafe situations and use of emergency notices and warning labels
- Operation of and positioning of emergency isolation controls and valves
- Checking and setting appliance burner pressures and gas rates
- Operation and checking of gas safety devices and controls
- Flueing standards
- Flue testing
- Installation of open, balanced and fan-assisted flue systems
- Establish existing gas supply and re-light appliances
- Unsafe Situations

## Training Information

### ACS Training Costs & Information

| Course Code                                       | Duration             | Cost (£) |
|---|----------------------|----------|
| CCN1 (includes re-ass appliances and CPA1)        | 3 days or 5 evenings | 360      |
| Separate appliance training (ie CKR1 or HTR1 etc) | 1/2 day or 1 night   | 85       |
| CPA1  | 1/2 day or 1 night   | 85       |

Training materials are included in the cost

**Remember we do not charge VAT**



# ACS Domestic Course Assessment Details

After completing **Core Domestic Gas Safety (CCN1) Assessment** candidates are also eligible for assessment in any of the following courses. All courses can be tailored to suit individual requirements:

## Central Heating Boilers/Water Heating Appliances (CENWAT1)

On successful completion gas operatives will be qualified to install and maintain domestic gas fired central heating boilers/hot water circulators & domestic gas fired instantaneous water heaters.

## Cooker Appliances (CKR1)

On successful completion gas operatives will be qualified to install and maintain domestic gas cookers.

## Fires and Wall Heaters (HTR1)

On successful completion gas operatives will be qualified to install and maintain domestic gas fired space heaters, including gas fires and wall heaters.

## Meters (MET1)

On successful completion gas operatives will be qualified to install, exchange and disconnect domestic gas meters.

## Warm Air Heaters (DAH1)

On successful completion gas operatives will be qualified to install, service and maintain domestic warm air units.

## Combustion Performance Analysis (CPA1)

The CPA1 course is for gas operatives who need to measure flue gas CO/CO2 ratios in the course of their day to day work. This assessment is now required by the Gas Safe Register as proof that engineers are competent to carry out CO/CO2 analysis on any appliances they are working upon.

## ACS Re-Assessment Costs & Information

| Course Code      | Duration of assessment     | Pre-requisite qualifications               | Assessment Type & Cost (£) |
|------------------|----------------------------|--|----------------------------|
|                  |                            |  | Re-assessment              |
| CCN1 (Incl.CPA1) | Up to 2 Days or 3 evenings | CCN1 or recognised industry qualifications | 380                        |
| CENWAT1          | Up to ½ Day or 1 evening   | CCN1                                       | 50                         |
| CKR 1            | Up to ½ Day or 1 evening   | CCN1                                       | 50                         |
| HTR 1            | Up to ½ Day or 1 evening   | CCN1                                       | 50                         |
| DAH 1            | Up to ½ Day or 1 evening   | CCN1                                       | 50                         |
| MET 1            | Up to ½ Day or 1 evening   | CCN1                                       | 50                         |

Re-assessment CCN1 and all re-assessment appliances listed above can commonly be completed within a maximum 3 day (5 nights) period.

Stand-alone appliance re-assessment ie CENWAT1 undertaken out-with CCN1 re-assessment will be charged at £100 per assessment plus £45 registration fee and £50 per additional appliance if required.

| Typical Combined ACS Training & Re-Assessment Client Cost |  | Cost £     |
|---|--|------------|
| Training Costs  | CCN1 (Incl. CPA1 & Appliances)                   | 360        |
| Assessment Costs  | Re Ass CCN1 (Incl. CPA1) + 1 appliance (CENWAT1) | 430        |
|   | Registration fee                                 | 45         |
|   | <b>Total client ACS costs</b>                    | <b>835</b> |

## ACS Initial Assessment Costs & Information

| Course Code      | Duration of assessment      | Pre-requisite qualifications               | Assessment Type & Cost (£) |
|------------------|-----------------------------|--|----------------------------|
|                  |                             |  | Initial                    |
| CCN1 (Incl.CPA1) | Up to 2½ Days or 4 evenings | CCN1 or recognised industry qualifications | 470                        |
| CENWAT1          | Up to ½ Day or 1 evening    | CCN1                                       | 100                        |
| CKR 1            | Up to ½ Day or 1 evening    | CCN1                                       | 100                        |
| HTR 1            | Up to ½ Day or 1 evening    | CCN1                                       | 100                        |
| DAH 1            | Up to ½ Day or 1 evening    | CCN1                                       | 100                        |
| MET 1            | Up to ½ Day or 1 evening    | CCN1                                       | 100                        |

All prices quoted are based on minimum course class sizes.

**Remember we do not charge VAT**



## Unvented Hot Water Course

The Unvented Hot Water Systems course is aimed at operatives who want to install, service and commission unvented domestic hot water systems in the UK. It is a legal requirement of the building regulations (G3) that all domestic unvented hot water systems over 15 litres capacity are installed and maintained by a qualified and competent person.

A qualified and competent person is someone who holds a current recognised Unvented Hot Water Storage certificate.

The certificate is valid for 5 years, after which the holder must attend an approved centre and take an unvented hot water re-assessment course.

Candidates wishing to attend this course must hold

a recognised Trade qualification in either Plumbing, Gas or heating and ventilation. Alternatively, they must provide evidence that they have experience working in the industry in the form of a CV with references that can verify their experience. For reassessment, candidates must provide their current certificate.

This course covers the inspection, installation, commissioning and servicing of unvented hot water storage units and packages. This includes the electrical supply arrangements for direct heating, i.e. immersion heaters and the component requirements for indirect heating.

There are three modules:

- Inspect
- Commission
- Install and Service

| UVHW Training & Assessment Costs & Information |                        |   |            |
|--|------------------------|---|------------|
| Course Code                                    | Duration of assessment | Pre-requisite qualifications            | Cost (£)   |
| UVHW   | 1 Days or 2 evenings   | Relevant Plumbing or Gas Qualifications | 175        |
|  |                        | Registration fee                        | 25         |
|  |                        | <b>Total client costs</b>               | <b>200</b> |

**Remember we do not charge VAT**

**Pre study is required for this course** (the course workbook will be issued in advance)



## Essential Electrics

This course is for operatives that require proof of electrical training and assessment under the Electricity at Work Regulations, indicating that you have demonstrated you can work with electricity in a safe manner. The Electricity at Work Regulations state that any person working on electrical equipment must be competent to do so. The Construction Skills Essential Electrics scheme will assist you to work safely and prove your competence.

The course covers essential electrics knowledge for those who service, repair, fault find and install replacement electrical components involving central heating systems and central heating system controls.

The course is designed to enable candidates to meet the following assessment criteria:

- Recognise & calculate electrical quantities
- Identify common supply system arrangements
- Measure voltage, current and resistance values
- Identify any possible contraventions of the Electricity at Work Regulations
- Safely isolate electrical equipment and circuits
- Survey an installation for electrical bonding

The Assessment has been designed to test an operatives ability in the basic working procedures, standards and legislative requirements relating to working on or near electrically operated equipment.

| Electrical & Combi Course Costs & Information |                        |                              |            |
|---|------------------------|------------------------------|------------|
| Course Code                                   | Duration of assessment | Pre-requisite qualifications | Cost (£)   |
| Essential Electrics (E1)                      | 2.5 Days or 4 Evenings | None                         | 250        |
|   |                        | Registration fee             | 25         |
|   |                        | <b>Total client costs</b>    | <b>275</b> |

**Remember we do not charge VAT**





## Combination Boilers

With the downturn in the economy, the installation of new boilers would seem to be in decline, however it is worth considering that the annual servicing and maintenance of existing boilers and systems has continued. The Combination Boiler Course will provide you with the skills to widen your scope of work and develop your income.

We have a comprehensive range of combination and system boilers from a wide range of manufacturers. They are all fully functional and maintained in top condition for you to work on during your training and assessment. We believe you will learn faster and gain better experience by training on a wide variety of boilers. We are not manufacturer specific. All operatives will gain an understanding of how combination boilers function and will be able to rectify and fault find generically.

The Essential Electrics course is a pre-requisite to this course and covers the use and understanding of Multi-meters which, is fundamental for the combination boiler course. The Combination Boiler Course has been specifically designed for plumbing, gas and heating engineers of all backgrounds. These can range from fault finding engineers wishing to enhance their skills, to those operatives who install boilers and now wish to gain fault finding skills.

At the end of the training program session there is a short assessment and on your successful completion will result in a fully certified Achievement Certificate and card from the Construction Skills proving your competence in this area.



### Electrical & Combi Course Costs & Information

| Course Code                       | Duration of assessment | Pre-requisite qualifications          | Cost (£)   |
|-----------------------------------|------------------------|---------------------------------------|------------|
| Combi Boiler Fault Finding (E4/5) | 3 Days or 5 Evenings   | Essential Electrics & Current CENWAT1 | 320        |
|                                   |                        | Registration fee                      | 25*        |
|                                   |                        | <b>Total client costs</b>             | <b>345</b> |

\* If Combi course undertaken along with Essential Electricals only 1 Registration fee applies

**Remember we do not charge VAT**

## Intermediate/Foundation Domestic Gas Training Course

The Intermediate/Foundation Gas training course is aimed at Plumbers or operatives who are working in an associated and closely related mechanical services industry but have had little or no previous experience of working in the domestic gas industry. Hand-skills on the jointing and bending of copper pipe are a pre-requisite of this course.

The Intermediate/Foundation Gas training programme must be completed in full as well as all relevant ACS modules before a candidate can be accepted onto the GAS SAFE (previously Corgi) registration scheme. The Intermediate/Foundation Domestic Gas Training Course will provide an individual with critical foundation knowledge and understanding that must be gained before entering the gas industry and ultimately achieving GAS SAFE registration.

All of the following areas are covered in theory, practical work and assessments:

- Testing and purging of domestic gas installations
- Combustion
- Flues and ventilation
- Controls for gas appliances
- Gas pipe-work
- Gas industry legislation
- Installation of domestic gas appliances
- Commissioning, servicing and maintenance of domestic gas appliances

There are very specific entrance criteria that must be met by you before you can qualify for access to ACS certification. The Intermediate/Foundation Domestic Gas Training Course will provide you with a route to certification but you must be able to provide us with as much information as

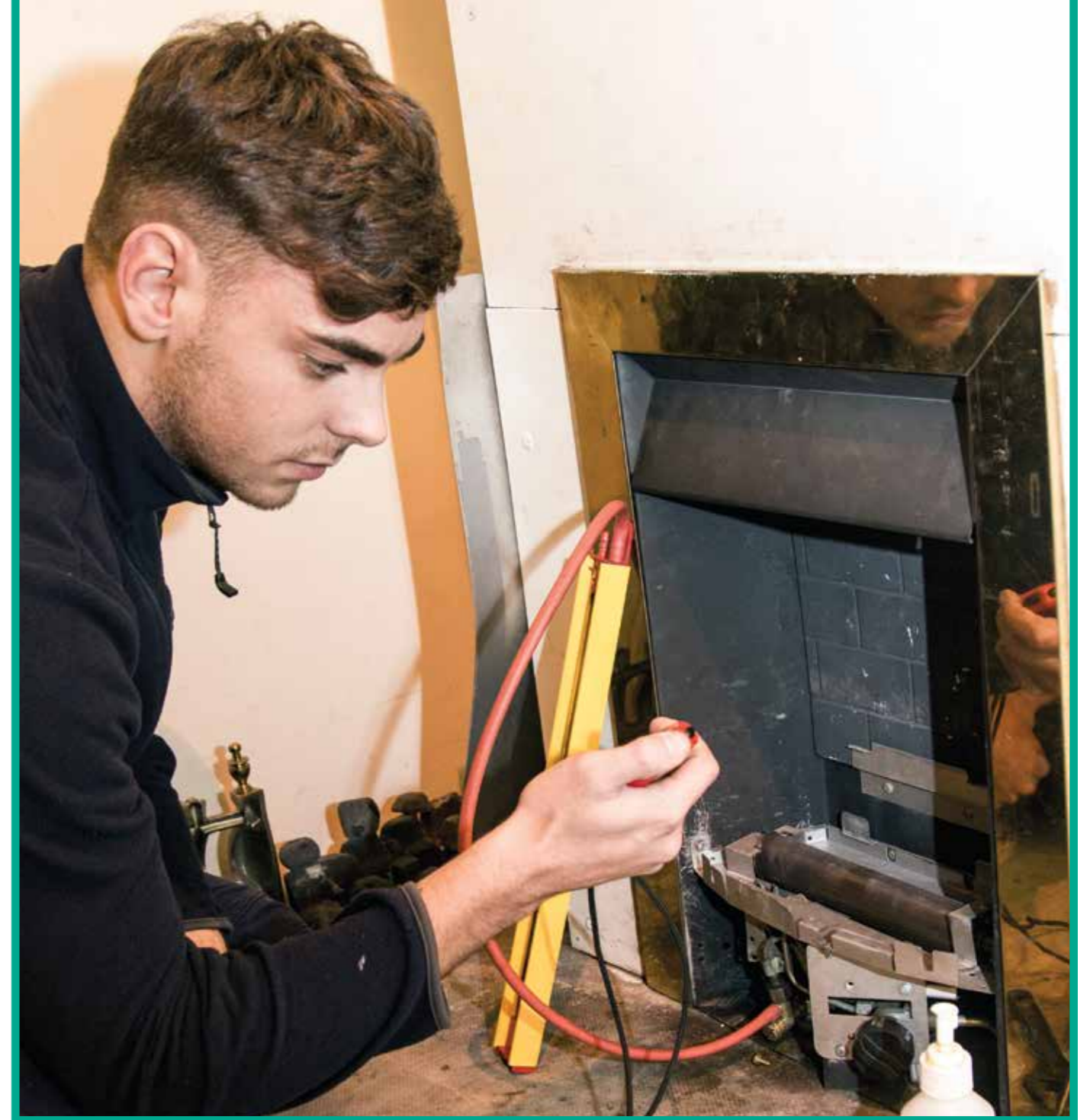
possible to ensure that only the most appropriate and suitably experienced candidates can be put forward.

Suitable applicants will have to seek training and experience and will have to be in the employment of a GAS SAFE registered business or be able to access a GAS SAFE registered 'mentor' to undertake this course.

An auditable period of 'on-site' gas training and organisational support for the operative prior to taking ACS assessment will have to be provided by the Gas Safe registered mentor or employer. The 'on-site' experience will run alongside a structured College-based 'off-site' training program of approximately 35 days. The overall duration and content of the 'on-site' training programme will be determined by the scope of gas work to be undertaken by each individual candidate. Evidence in the form of an 'on-site' portfolio and the completion of such a training programme must be presented to the Assessment Centre prior to the operative taking assessments.

All training for Core Gas Safety (CCN1), Combustion Performance Analysis (CPA1), Central Heating and Water Heaters (CENWAT1) Gas Fires (HTR1), Gas Cookers (CKR) and Meters (MET1) will be provided. All related and relevant assessments will be subject to the verification of a submitted portfolio of evidence. We will also include (at no extra charge) an additional CSkills Essential Electrics Training and Assessment course.

We believe our course will not only provide you with knowledge to work upon gas safely but also give you greater confidence when working upon electrics, central heating systems and boilers.



### Intermediate/Foundation Domestic Gas Training Course

| Course Code                      | Duration of training | Pre-requisite qualifications                                  | Cost (£) |
|----------------------------------|----------------------|---|----------|
| Intermediate Gas Training Course | 35 Days              | Appropriate Industry experience and or related qualifications | TBC      |

**\*Course costs will include all Intermediate/Foundation Gas Course registration fees, materials and course workbooks.**

**For ACS Assessment (initial) costs see page 9 for details.**



