



Jersey Progression Qualification in Building Services

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College

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States of Jersey and Highlands College

Contents

Section A Qualification: Context and Regulations	4
Introduction	6
About this qualification	8
Qualification purpose.....	8
Entry guidance	9
Qualification structure.....	9
Grading	10
Unit grading.....	11
Overall unit grade.....	12
Pass only criteria.....	13
Qualification grading.....	13
Overall grading descriptors	16
How the qualification is assessed	17
Course-based assessment.....	17
Standardisation	19
External verification	19
Awarding	19
Assessment regulations	21
Extenuating circumstances	22
Compensation	22
Student academic appeal procedure.....	24
Academic malpractice policy	24
Access arrangements and reasonable adjustments.....	25
Section B Unit Content and assessment guidance	26
Structure of the Jersey Progression Qualification in Building Services	28
Unit 1 Performing Simple Building Services Tasks	29
Unit 2 Health and Safety in Building Services	32
Unit 3 Carrying Out Building Services Installations	35
Unit 4 Working in the Industry	38
Unit 5 Common Processes in Building Services	43
Unit 6 Measurement and Drawing in Building Services.....	46
Unit 7 Exploring Basic Fabrication Techniques in Building Services	49

Unit 8 Performing Basic Maintenance Operations.....	52
Unit 9 Electrical	55
Unit 10 Scientific Principles used in Building Services	58
Appendices	62
Appendix I - Extenuating Circumstances Form	64
Appendix II - Candidate Appeal Form	66
Appendix III – Assessment Brief Template.....	68
Appendix IV – Assessment Brief Internal Verification Template.....	71
Appendix V– Internal Verification Template for Assessment Decisions	73

Section A

Qualification:

Context and

Regulations

Introduction

The Jersey Progression Qualification (JPQ) was introduced at Highlands College in September 2016 as a pilot project. The development of this qualification at level 2 has significantly improved the life chances of young people by ensuring that a greater proportion of school leavers progress from level 1 achievement at school to level 2 courses in the college. In 2014, 20.4% of full-time students were enrolled on level 1 or entry level qualifications. In 2017, since the introduction of the Jersey Progression Qualification, this has reduced significantly to 5.9% of full-time students on level 1/entry courses.

The Jersey Progression Qualification provides a coherent framework for teaching, learning and assessment that will inspire and motivate young people, post 16, who have not met the minimum school leaving attainment level of GCSE grade C or grade 4 or above in five subjects (or an equivalent pass or higher in a comparable level 2 vocational qualification). For the majority of jobs in occupations which require a technical qualification, the minimum requirement is a level 2 technical qualification. For higher education and those occupations requiring a general qualification, the minimum requirement is a level 3 general qualification.

The primary purpose of the **Jersey Progression Qualification** is to enable young people aged 16-18 to develop the knowledge and skills, commensurate with the school leaving threshold of level 2, that will enable them to progress to the industry standard qualifications in a technical, professional or academic subject area. Students that have yet to achieve a result at level 2, continue with English and maths at GCSE level alongside the Jersey Progression Qualification.

The Jersey Progression Qualification is designed as a 'bridging course', between school leaving qualifications and recognised post-16 qualifications, that have transportability, both on and off the island, to further training, employment or higher education. The development and implementation of the **Jersey Progression Qualification** pre-empted the recommendation of the Sainsbury Report into Technical Education ¹ to introduce a *transition year* that will serve a very similar purpose in England from 2020. At Key Stage 4, the Jersey Curriculum has adopted and adapted the English National Curriculum and this approach has followed through into Key Stage 5.

The Jersey Progression Qualification has been developed with the support of the States of Jersey Department of Education and in partnership with the awarding body NCFE. It is intended to develop transferable skills and knowledge through an applied subject and with reference to a realistic working environment. The qualification will provide the means by which young people can develop the level of knowledge, skills and understanding necessary in order to progress to one of the recognised further education routes outlined in the diagram on the following page.

1

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536046/Report_of_the_Independent_Panel_on_Technical_Education.pdf

New Routes to University, an Apprenticeship or Employment

14 to 16

GCSE English and GCSE Mathematics

+

GCSEs in core subjects

At least three choices from:

Sciences (Biology, Chemistry, Physics)
Computer Science Geography
Languages History

+

Optional subjects

At least three choices from any combination of:

Other GCSE subjects e.g. Art and Design
Religious Education
Music

and

Technical Awards

High quality qualifications that equip learners with applied knowledge and practical skills

+

Other qualifications for learners with particular needs that do not count in performance tables

16 to 18

Progression Qualification

An intermediate qualification in general and technical subjects that enables learners to meet the school-leavers' threshold level and progress to academic, technical or work-based study.

16 to 18

Continuing with English and Mathematics

For all young people to at least GCSE level

A Levels

A range of academic qualifications that support progression into university

Applied General Qualifications

University-endorsed qualifications that offer the opportunity to gain applied knowledge and skills alongside A levels

Technical Levels ('Tech Levels')

Employer-endorsed qualifications for those who want to specialise in a particular occupation or industry sector

Technical Certificates

Employer-endorsed qualifications for those who need initial training before starting a Tech Level or entering a skilled trade

Apprenticeships

A real job with training that leads to further employment opportunities or studying at university level

Traineeships

A scheme to help young people who want to get a job or an Apprenticeship but don't yet have the right skills and experience

ACADEMIC

TECHNICAL

WORK-BASED

About this qualification

The Level 2 Jersey Progression Certificate and Jersey Progression Diploma is regulated by the States of Jersey Education Department and accredited by the NCFE awarding body.

- The Progression Certificate is equivalent to **two** GCSEs at grades A* to C (or grades 4 to 9) in terms of standard, level of content and period of study (240 guided learning hours).
- The Progression Diploma is equivalent to **four** GCSEs at grades A* to C (or grades 4 to 9) in terms of standard, level of content and period of study (480 guided learning hours).

The Jersey Progression Qualification has fourteen subject lines which are in:

- 1) Automotive Studies
- 2) Art and Design
- 3) Building Services
- 4) Building Trades
- 5) Business
- 6) Childcare and Education
- 7) Computing
- 8) Culinary Skills and Restaurant Service
- 9) Hair and Beauty
- 10) Health and Social Care
- 11) Mechanical Engineering and Welding Studies
- 12) Media
- 13) Performing Arts
- 14) Sport.

Qualification purpose

The Jersey Progression Qualification enables learners to develop skills, knowledge and understanding in a technical or general vocational subject area. It is for learners who are motivated and challenged by learning through hands-on experiences. The qualification will allow learners to gain practical skills in one of 14 subject areas as well as gain and interpret knowledge of that subject area. It is aimed at school leavers, with an interest in the subject, as a way of extending their general level of education and motivating them to succeed as independent learners.

The Jersey Progression Qualification provides an introduction to an industry-related sector and enables learners to acquire, develop and apply the skills and knowledge required for further academic and/or technical study. Transferable skills that prepare young people for satisfying working and social lives are a core component in the way that the qualification is delivered. Throughout the course learners will be:

- reviewing their own and others' work
- developing and honing their communication skills
- gaining valuable work experience
- developing their personal and social skills
- planning and experimenting with ideas
- working collaboratively with others
- fully aware of health and safety requirements.

The Jersey Progression Qualification is designed so that learners can improve their level of general qualification through a work-related subject. It will enhance their cognitive skills and develop their practical skills so that they are more likely to be successful in achieving level 2/3 technical qualifications or level 3 general qualifications when they progress. Learners without at least a grade C or grade 4 in maths and English at GCSE will take these subjects alongside the Progression Qualification.

Entry guidance

There are no specific recommended prior learning requirements for this qualification. It should be accessible for post-16 learners who are able to demonstrate an aptitude for and an interest in the particular technical and professional area. An indicator for learners likely to achieve the Diploma within one year is prior achievement in at least 5 GCSEs at grades E to C (or 2 to 4) and/or level 1 (120 guided learning hours) vocational equivalent qualifications. Learners with a mixture of GCSE grades from D to G are more likely to achieve the Certificate in one year.

Qualification structure

The Jersey Progression Certificate and **Jersey Progression Diploma** reflect the range and depth of subject matter and skills that need to be taught at pre-technical level or pre-advanced general level.

The Jersey Progression Qualification is structured so that the smaller **Jersey Progression Certificate** is 'nested' within the larger **Jersey Progression Diploma**.

The Jersey Progression Certificate requires learners to achieve **five units**, **two** of which must be **core** units and **the Jersey Progression Diploma** requires learners to achieve a further **five units**, **two** of which must be **core** units.

The Jersey Progression Certificate is a standalone five-unit qualification. **The Jersey Progression Diploma** is a ten-unit qualification which has the Jersey Progression Certificate 'nested' within it.

The sequencing of units is at the discretion of the course team, but the synoptic units (units 1 and 3) should normally be taught and assessed subsequent to the teaching and assessment of the other units.

The content and assessment of a unit is designed to be covered in 48 guided hours. **The Jersey Progression Certificate**, structured around five units, requires **240 guided hours** of teaching and assessment. There is an assumption that a further **160 hours of learning** will take place in addition to the 240 hours of teaching and assessment in the form of research, private study, workshop practice, rehearsals and assignment or project preparation and writing. The 240 guided hours gives equivalency to two GCSEs in terms of the time required to acquire knowledge, understanding and skills at level 2.

The Jersey Progression Diploma builds on the five-unit structure of the Jersey Progression Certificate and requires a further **240 guided hours** of teaching and assessment. There is an assumption that a further **160 hours of learning** will take place in addition to the 240 hours of teaching and assessment in the form of research, private study, workshop practice, rehearsals and assignment or project preparation and writing. The 240 guided hours from the Jersey Progression Certificate plus the additional 240 guided hours that make up the Jersey Progression Diploma (total 480 guided hours) gives equivalency to four GCSEs in terms of the time required to acquire knowledge, understanding and skills at level 2.

JERSEY PROGRESSION QUALIFICATION STRUCTURE

1 or 3	CORE UNIT	48 hours	P L U S	1 or 3	CORE UNIT	48 hours
2 or 4	CORE UNIT	48 hours		2 or 4	CORE UNIT	48 hours
5		48 hours		8		48 hours
6	Any THREE option units	48 hours		9	Any THREE option units	48 hours
7		48 hours		10		48 hours
Total Guided Hours		240		Total Guided Hours		240
JERSEY PROGRESSION CERTIFICATE				JERSEY PROGRESSION DIPLOMA		

The assessment opportunities in the **Jersey Progression Certificate and Jersey Progression Diploma** are designed to enable learners to demonstrate that they:

- a) have acquired the taught skills to an expected minimum level
- b) have gained sufficient practical and theoretical knowledge of the technical and professional area
- c) can demonstrate their understanding of the subject content
- d) are aware of what is required by the sector in which they are interested
- e) can behave appropriately when working within the specific technical and professional area.

To be awarded the **Level 2 Jersey Progression Certificate**, learners are required to successfully complete **two core units** and **three option units**. Learners must successfully demonstrate their achievement of all learning outcomes in the required units as detailed in this qualification specification. Unit certificates can be awarded to learners who have not achieved the full qualification, but who have achieved at least one unit.

To be awarded the **Level 2 Jersey Progression Diploma**, learners are required to successfully complete a further **two core units** and a further **three option units**. Learners must successfully demonstrate their achievement of all learning outcomes in the required units as detailed in this qualification specification.

Grading

The Jersey Progression Certificate and Diploma are graded qualifications. The grades for individual units are recorded on the final certificate, but there is **one** overall grade of Pass, Merit, Distinction, or Distinction* awarded for the Certificate and a **second** overall grade of Pass, Merit, Distinction, or Distinction* awarded for the

Diploma. The grade of Distinction* is awarded if all the units are achieved at Distinction level.

Grading descriptors for each learning outcome and each unit have been included in this qualification specification. Assessors must be confident that all the learning outcomes have been evidenced and met by the learner in order to pass the unit. Assessors will judge the evidence produced by the learner to determine the grade for the unit.

Pass, Merit and Distinction Grades are awarded for the **Jersey Progression Certificate** at unit level and these are converted to **one** overall grade for the five units (2 core and 3 option) that contribute to the award of this qualification.

Similarly, Pass, Merit and Distinction Grades are awarded for the remaining five units that make up the **Jersey Progression Diploma** at unit level and these are converted to a **second** overall grade for the qualification for the remaining five units (2 core and 3 option) that contribute to the award of this qualification.

The Jersey Progression Certificate is awarded with **one** overall grade of Pass, Merit, Distinction or Distinction*.

The Jersey Progression Diploma is awarded with the **one** overall grade of Pass, Merit, Distinction or Distinction* achieved through the units that make up the Certificate and a **second** overall grade of Pass, Merit, Distinction or Distinction* achieved through the remaining units that make up the Diploma.

Distinction* is only awarded where all units are achieved at Distinction level.

Unit grading

The grading descriptors for each unit are included in the qualification specification. Grading descriptors are written for each assessment criterion in a unit. Assessors must be confident that, as a minimum, all assessment criteria have been evidenced and met by the learner. Assessors must make a judgement on the evidence produced by the learner to determine the grading decision for the unit. Grading is initially carried out at the learning outcome level.

Assessors must firstly be confident that all the Pass descriptors have been met for a learning outcome.

For example:

Pass:	LO1: Describes some characteristics and benefits of good customer service and some elements of legal requirements
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Assessors can then move on to decide if the Merit descriptors have been met for the learning outcome.

For example:

Merit:	LO1: Describes a range of good customer service characteristics and benefits citing some examples and a range of legal requirements
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If the Assessor is confident that all the Merit descriptors have been met, they can

decide if the Distinction descriptors have been met for the learning outcome.

For example:

Distinction:	LO1: Describes a wide range of good customer service characteristics, benefits and legal requirements citing examples for each one
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Each unit has three grades which are equally weighted. If the learner has insufficient evidence to meet the Pass criteria, a grade of Not Yet Achieved (NYA) must be awarded for the unit.

Overall unit grade

The overall unit grade is determined by the highest average grade across the three learning outcomes. The overall unit grade will be determined from the following table:

LO1	LO2	LO3	Overall
P	P	P	P
P	P	M	P
P	P	D	M
P	M	P	P
P	M	M	M
P	M	D	M
P	D	P	M
P	D	M	M
P	D	D	M
M	P	P	P
M	M	M	M
M	M	P	M
M	M	D	M
M	D	D	D
M	P	M	M
M	P	D	M
M	D	D	D
D	P	P	M
D	M	M	M
D	M	P	M
D	M	D	D
D	D	M	D
D	D	D	D
D	P	M	M
D	P	D	M

Pass is a minimum requirement for all learning outcomes

Pass only criteria

When a learning outcome is **PASS** only, for example LO1, the criterion for LO1 applies to MERIT and DISTINCTION and the grade for LO1 defaults to the highest grade achieved for LO2 or LO3 in order to determine the overall unit grade.

For example:

	PASS	MERIT	DISTINCTION	Grade awarded
LO1	PASS ONLY	PASS ONLY	PASS ONLY	Defaults to DISTINCTION
LO2			Meets Distinction Criterion	DISTINCTION
LO3		Meets Merit Criterion		MERIT
LO1 = D; LO2 = D; LO3 = M (DDM = D)				DISTINCTION

A further example, where LO3 is pass only:

	PASS	MERIT	DISTINCTION	Grade awarded
LO1		Meets Merit Criterion		MERIT
LO2		Meets Merit Criterion		MERIT
LO3	PASS ONLY	PASS ONLY	PASS ONLY	Defaults to MERIT
LO1 = M; LO2 = M; LO3 = M (MMM = M)				MERIT

Qualification grading

The final grade for the qualification is based on the unit grades - Pass, Merit, and Distinction. It is arrived at according to the table below which shows how the combination of unit grades is aggregated to form the overall qualification grade for the Certificate and the Diploma.

An awarding panel will meet before the final grades are submitted to NCFE to consider special considerations and extenuating circumstances.

The **highest** possible grade is determined first. Units 1, 2, 3 and 4 are the **core** units of the qualification. Units 1 and 3 contain synoptic elements, unit 2 contains essential knowledge and skills and unit 4 is the **Working in the Industry** unit which is common to all subject strands. Units 5 and above are all option units. The **highest** overall grade is determined by:

1. Selecting the highest grade achieved for unit 1 or 3
2. Selecting the highest grade achieved for unit 2 or 4
3. Selecting the **three** highest grades achieved from the option units.

For example:

This is a candidate grade profile for all 10 units:

1	2	3	4	5	6	7	8	9	10
P	M	M	D	P	M	P	D	D	M

1. Between units 1 and 3, the highest grade achieved is for Unit 3: **MERIT**
2. Between units 2 and 4, the highest grade achieved is for Unit 4: **DISTINCTION**
3. The **three** highest grades achieved from the option units are for Units 8, 9 and 6 or 10: **DISTINCTION; DISTINCTION; MERIT**.

The five **highest** grades achieved in this example (arranged in the order with lowest grades first) are:

A	B	C	D	E
M	M	D	D	D

The final **highest** overall grade is aggregated according to the table below:

Unit A	Unit B	Unit C	Unit D	Unit E	Final overall grade
P	P	P	P	P	P
M	M	M	M	M	M
D	D	D	D	D	D*
P	P	P	P	M	P
P	P	P	P	D	P
P	M	M	M	M	M
M	M	M	M	D	M
P	D	D	D	D	D
M	D	D	D	D	D
P	P	P	M	M	P
P	P	P	D	D	M
P	P	M	M	M	M
M	M	M	D	D	M
P	P	D	D	D	M
M	M	D	D	D	D
P	P	P	M	D	M
P	M	M	M	D	M
P	M	D	D	D	M
P	P	M	M	D	M
P	P	M	D	D	M
P	M	M	D	D	M

These two grade profiles are only one grade different from the higher grade and should be reviewed at awarding.

From the table above, the example of a grade profile of **MMDDD** works out as an overall grade of **Distinction**.

A	B	C	D	E	OVERALL GRADE
M	M	D	D	D	D

Where **five** appropriate units have been achieved but less than 10 units have been fully achieved, just the Jersey Progression Certificate is awarded and the highest grade (Distinction, in this example) will be recorded on the certificate. A unit certificate for any additional units above the five used to grade the Certificate but fewer than five to contribute towards a Diploma will be issued. Where fewer than five units overall have been achieved, just a unit certificate will be awarded for the units achieved.

Once the **highest** overall grade has been determined, the remaining five units can be used to determine the **second overall grade** for the **Jersey Progression Diploma**. Using the example from above, the remaining unit grades that can be used to calculate the second overall grade are:

1	2	5	7	10
P	M	P	P	M

Rearranged in grade order, with the lowest first, gives a grade profile of **PPPM**. Using the final overall grade table from above, the **second overall grade** is a **Pass**.

Unit A	Unit B	Unit C	Unit D	Unit E	Final overall grade
P	P	P	M	M	P
These two grade profiles are only one grade different from the higher grade and should be reviewed at awarding.					

From the overall grade table, it will be noted that this particular profile is highlighted in red because it is a borderline grade. At the awarding stage there is an opportunity to review the grades for the units with a pass to ensure that the assessment is secure.

Where the learner has achieved ten units, as in the example above, they will receive **one overall grade** for the **Jersey Progression Certificate** and a **second overall grade** for the **Jersey Progression Diploma**. In the example above, the overall grades are Pass and Distinction. Where one grade is higher than the other, the lower grade should be assigned to the Jersey Progression Certificate (Pass) and the higher grade to the Jersey Progression Diploma (Distinction).

Distinction* (star) is awarded where all of the grades for the Certificate are Distinction. Double Distinction*(star) is awarded where all 10 units are graded Distinction.

Overall grading descriptors

Not Yet Achieved

The learner will not meet all the learning outcomes and will not have enough work or evidence of progress available to allow a valid judgement to be made.

Pass

To achieve a Pass grade the learner will meet all the requirements as set out in the assessment criteria for each unit. They will make some effort to apply knowledge, and have some understanding of key concepts, but may not be able to make links between them. The learner will have a general understanding of processes, resources, techniques and materials, but this may be uneven in application. Their evidence will show some degree of planning, organisational and investigatory skills, but may be lacking in structure.

The learner will have completed the tasks to the minimum standard for a level 2 qualification.

Merit

To achieve a Merit grade the learner will meet all the requirements as set out in the assessment criteria for each unit to the required standard. They will demonstrate a confident level of ability in their application of knowledge and skills and will have a clear understanding of key concepts, making some links between them and giving reasons for their choices. The learner will have a clear understanding of processes, resources, techniques and materials with few errors in application. Their evidence will show planning, organisation and investigatory skills in a clear and logical way.

The learner will have completed the tasks in a manner exceeding the minimum standard for a level 2 qualification.

Distinction

To achieve a Distinction grade the learner will meet all the requirements as set out in the assessment criteria for each unit to a high standard. They will demonstrate mastery of appropriate processes, resources, techniques and materials. The learner will demonstrate an ability to undertake relevant and wide-ranging research, analysing and evaluating information to make informed judgements. They will have a detailed understanding of processes, resources, techniques and materials showing independent ideas expressed with confidence and originality. Their evidence will be appropriately contextualised showing planning, organisation and investigatory skills in a well-structured and thorough way.

The learner will have shown a high degree of motivation, ability and commitment and will have completed the tasks effectively in a manner far exceeding the minimum standard for a level 2 qualification.

Distinction* (Star)

The learner will have achieved a Distinction grade for all units of the qualification demonstrating consistent work for a level 2 qualification.

How the qualification is assessed

Assessment is the process of measuring a learner's skill, knowledge and understanding against the standards set in a qualification. The assessment for the **Jersey Progression Qualification** is unit based. Each unit requires the learner to demonstrate that they have met the learning outcomes. Learning outcomes are assessed through a portfolio of evidence which can take a number of different forms. The assessment methods used are appropriate to the type of learning activity and tasks prescribed in the unit.

Assessment methods include:

- Assignments
- Project based work
- Written tests or examinations
- Practical tests or examinations
- Lecturer/assessor observation
- Audio/video recorded activities
- Interviews or a viva
- On-line assessment
- Portfolio of documentation
- Sketchbooks
- Video/audio diaries
- Workbooks
- Use of blogs or discussion forums
- Employer or customer/client feedback.

Course-based assessment

The assessment tool or activity for each unit is designed and set by each course team or an individual member of the team. A unit may have more than one assessment type to cover all of the learning outcomes but this will not *normally* exceed more than one per learning outcome. Where possible, a single assessment activity per unit is advised. Whilst **all** of the content of a unit must be taught, course teams can be **selective** about which aspects of the content may be assessed, particularly where assessment tests or assignments are unseen prior to the learner taking them.

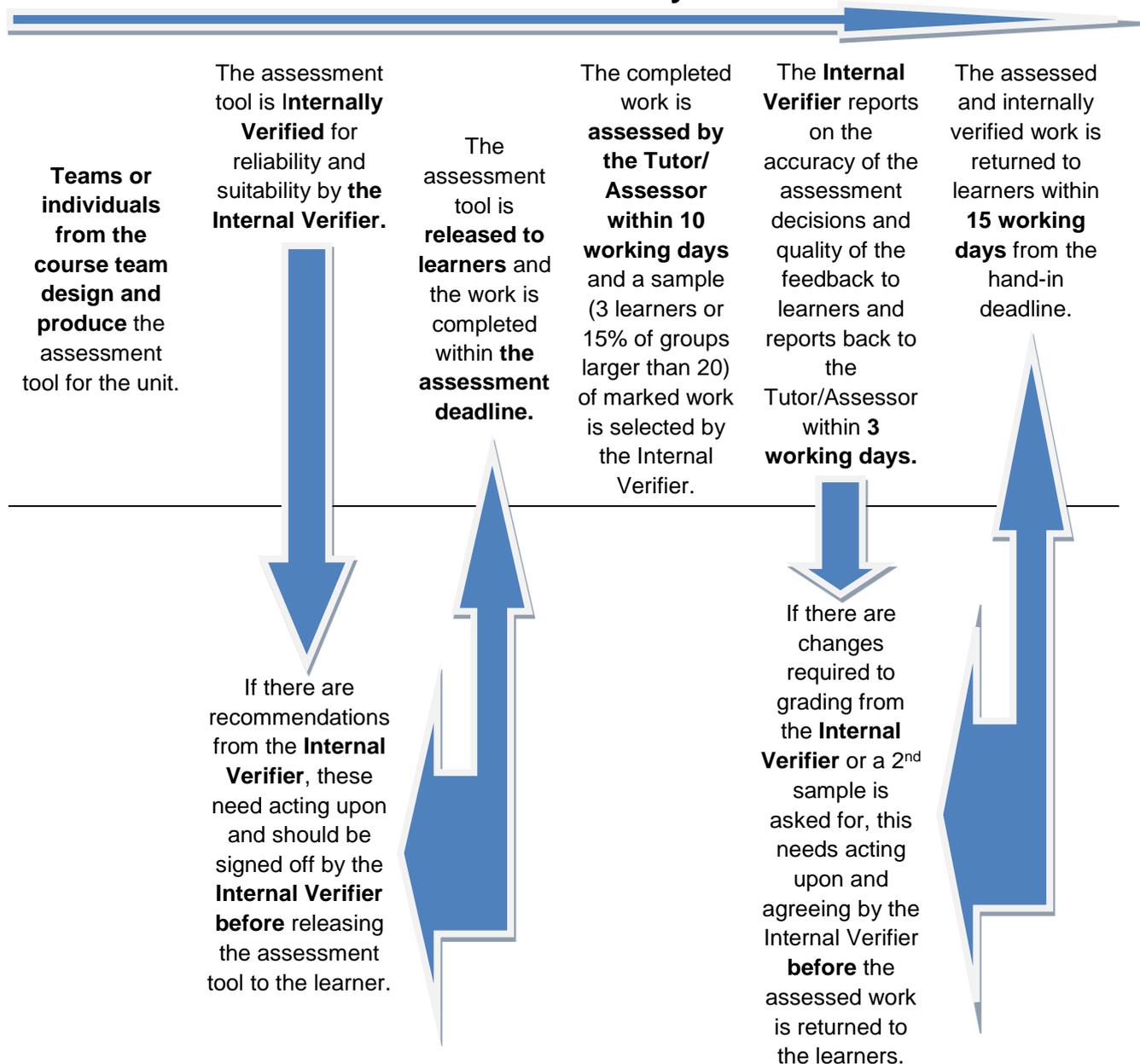
Once the assessment tool is designed and written it is given to an **Internal Verifier** to verify prior to being released to learners. The **Internal Verifier** must be independent from the design and production process of the assessment tool. The role of the **Internal Verifier** is to check the reliability and appropriateness of the assessment tool. The Internal Verifier will complete a pro-forma and feedback to the assessment tool writer/designer who will act upon any recommendations or required changes before issuing the assessment tool to learners.

Each learner will complete the appropriate assessment task or tasks for each unit to a given deadline. On completion of each unit learners will declare that the work produced is their own unaided work (except in the case of examinations or tests taken under timed and supervised conditions). The tutor/assessor will countersign this declaration to confirm that the work carried out is the learner's own and unaided work. Learners may carry out research activities outside of the supervised sessions, but any work submitted for assessment must be authenticated and attributable to the learner. Learners should ensure that any work by others or research material used in their assessed work is properly referenced and the source acknowledged.

Learner work will be assessed by the tutor/assessor using the grading criteria from each unit. The **Internal Verifier** will sample the assessed work and feedback to

the tutor/assessor on the accuracy of their assessment decisions using an Internal Verification pro-forma. The Tutor/Assessor must act on the feedback from the Internal Verifier and amend their assessment decisions accordingly. A further sample may be asked for where there are inaccuracies in the marking. A minimum of **three** different learners' work or **15%** of the cohort (whichever is the greater) should be sampled by the Internal Verifier for each assessment task. Across all units, all learners should be sampled where possible.

The assessment cycle



Standardisation

To ensure that standards are maintained across the whole Jersey Progression Qualification and within each subject strand, a **Lead Internal Verifier** will sample at least **three** different internally verified Assessment Tools within each subject strand. The **Lead Internal Verifier** will provide each Course Team and their Internal Verifiers with a brief report that highlights areas of good practice and identifies any areas for improvement. The **Lead Internal Verifier** will also report to an annual **Jersey Progression Qualification Review Board** on the standard, quality and consistency of the assessment tools being used across the qualification and make recommendations for improvements year on year.

The **Lead Internal Verifier** will also sample at least **three** internally verified assessment decisions from each subject strand. They will compare standards across and between each subject strand. This will ensure that assessment and grading decisions are being arrived at consistently in terms of the types and quality of evidence being presented for assessment purposes and the application of grading descriptors. The **Lead Internal Verifier** will also carry out standardisation exercises within subject strands and between different subject strands. The **Lead Internal Verifier** will produce a brief report for each course team that highlights good practice and provides recommendations that will ensure consistency and fairness of marking. The **Lead Internal Verifier** will also report to an annual **Jersey Progression Qualification Review Board** on the reliability and consistency of assessment decisions within each programme and across the Jersey Progression Qualification as a whole.

External verification

To further assure the quality and consistency of assessment across all subjects of the Jersey Progression Qualification, there is an external verification process that mirrors that of the Lead Internal Verification process. External verification is carried out by an external verifier who is appointed, trained and monitored by NCFE. The external verifier is responsible for monitoring and sampling learners' evidence to ensure that assessment decisions are valid, reliable, fair and consistent. The issuing of certificates by NCFE is subject to the External Verifier reporting that all of the conditions of accreditation have been met.

Awarding

An annual **Award Board** is held in late June/early July once all of the assessments are completed across all subject areas and the grades for each student are verified and recorded. The College Registrar is responsible for running these meetings and ensuring that the correct grades are recorded and reported to NCFE. **The Award Board** is made up of the Chair (normally the College Registrar), a member of the College Leadership Team, the Lead Internal Verifier and a Minutes Secretary.

Attendance at the Award Board

- The Head of Department or Director for the named qualification
- The Subject Co-ordinator for the named qualification
- The internal verifier(s) of all units for the named qualification
- Attendance of **unit assessors** at the awarding meeting is **optional**

Required documentation for the Award Board

- Copies of all completed Extenuating Circumstances forms (if any)
- Copies of all completed Candidate Appeals forms (if any)
- Copies of documentation related to compensation for missing marks (if any)
- Completed grading sheets for all candidates showing all unit grades and the proposed final overall grade for the Jersey Progression Certificate and for the Jersey Progression Diploma.

Agenda for the awarding meeting²

1. Welcome by the Chair and record of attendees made
2. Consideration of any Extenuating Circumstances
3. Decisions regarding individual candidates and extenuating circumstances documented and implemented **prior** to awarding³
4. Consideration of any Appeals
5. Decisions regarding individual appeals documented and implemented **prior** to awarding
6. Review of any candidates who have failed to complete the Certificate or the Diploma (or Unit 4: Working in the Industry) where there are no extenuating circumstances and/or an appeal has not been upheld
7. Chair records decisions related to non-completers which will be **one** of the following:
 - a. The candidate is allowed to resubmit work by a set date
 - b. The candidate is unable to resubmit work and achievement at unit only level will be recorded
8. Review of grade boundaries (at unit level for unit 4; at whole qualification level for named qualifications awarding).⁴
 - a. For unit 4: The Unit Leader will talk the panel through the Minimum Mark Setting Process for the unit and verify how the grade boundary decisions for the unit were reached. Comparison with the previous year's grade boundaries also to be taken into consideration.
 - b. All candidates with grades **PPPMM** (which equates to an overall **Pass** grade) to be reviewed. This is to ensure that the team is satisfied that all of the units graded Pass are securely assessed. If any of the units graded at Pass are close to the Pass/Merit boundary, this work may be recommended for re-assessment. If one of the pass units is re-assessed at Merit, the overall grade to be awarded at **Merit**.

² Unit 4: Working in the Industry is common to all named qualifications. There will be a separate awarding meeting for this unit which will happen before the subject panels. The agenda for this meeting will relate solely to the unit and the decisions for this unit will be carried forward to each subject awarding meeting.

³ Where decisions related to Extenuating Circumstances and/or appeals cannot be resolved at this stage, the panel will reconvene to determine the outcomes for the individual candidates concerned. Decisions related to candidates where there are no appeals or extenuating circumstances will be made as part of items 6 and 7.

⁴ Where the Unit 4 result is the reason for a candidate's overall grade being on the Pass/Merit or Merit/Distinction grade boundaries and that candidate's unit 4 grade is within 1 mark of the learning outcome grades for the unit, their work will be reviewed.

- c. All candidates with grades **MMMDD** (which equates to an overall **Merit** grade) to be reviewed. This is to ensure that the team is satisfied that all of the units graded Merit are securely assessed. If any of the units graded at Merit are close to the Merit/Distinction boundary, this work may be recommended for re- assessment. If one of the Merit units is re-assessed at Distinction, the overall grade to be awarded at **Distinction**.
9. Confirmation of the award of the Jersey Progression Certificate and the Jersey Progression Diploma for each candidate in the named qualification pathway.
10. Summary of Actions from the meeting.
11. AOB.

The Chair will make it clear at the outset of each Awarding Meeting that the results remain confidential until the External Verifier has submitted their final report for the year.

Assessment regulations

To achieve the **Jersey Progression Qualification** learners will successfully pass the units associated with the qualification. The assessment schedule for each unit will be identified at the start of the course and may include a range of different tasks such as practical activities, skill tests, in-class tests, course work, written reports and formal examinations, amongst others. A submissions calendar for all assessed work will be made available at the beginning of the academic year.

Deadlines for assessment are an important part of the **Jersey Progression Qualification** as by meeting these, learners develop the important employability skill of good time management. It is also important not to advantage learners by accepting late work. This allows individuals extra time to complete assignments, which is unfair. If there are extenuating circumstances for late submission the learning needs to complete the appropriate form and submit it for consideration at the Award Board. Assessments which are not submitted by the original specified assessment deadline but are received within five working days afterwards will be marked but will only be able to receive a maximum grade of **Pass**. Late work will have limited written feedback.

Normally only one opportunity will be given to provide final formative assessment feedback on assessed work. Feedback will focus on enhancing the learners' understanding and knowledge to allow them to further develop their answers. It is not intended that tutors write or provide information that can be directly incorporated into an assessment.

Following formative assessment and feedback, learners are able to:

- Revisit work to add to the original evidence produced to consolidate a Pass grade or to enhance their work to achieve a higher grade
- Submit evidence for summative assessment and the final unit grade.

Summative assessment is a final assessment decision on an assessment task in relation to the assessment criteria of each unit. It is the definitive assessment and it is recorded on the learner's profile. Should the learner not achieve at least a Pass grade, the submitted work will be recorded as 'Not Yet Achieved'.

Reassessment

The decision on whether to offer the learner the opportunity for reassessment will be made by the Course Team, in consultation with the Lead Internal Verifier, prior to the Award Board. Reassessment can either be through:

- Resubmission – revision of the work originally submitted; or
- Retake – submission of a new piece of work.

Extenuating circumstances

The purpose of this policy is to outline the support available for learners who, during their studies, experience exceptional unforeseen circumstances beyond their control which severely affect their ability to successfully complete an assessment, meet an assignment deadline or sit an examination. The table below gives an indication of what might be considered valid extenuating circumstances and circumstances which would not be considered valid.

This list is not exhaustive and learners should not make assumptions regarding extenuating circumstances but should ask for advice from their tutor or staff from Student Life to confirm what might be an appropriate claim.

Each claim for extenuating circumstances must be accompanied by a completed Extenuating Circumstances Form (see Appendix I) and independent supportive evidence which is signed and dated by the appropriate individual, e.g. the doctor. Examples of corroborating evidence likely to be acceptable include an original copy of a medical certificate, the doctor's or counsellor's letter on headed paper, or a hospital appointment letter. Every claim for extenuating circumstances will be considered by the Course Team, in consultation with the Lead Internal Verifier, on a case by case basis.

Applications for extenuating circumstances should always be made as soon as possible **before** the assessment deadline. Claims made after the assignment is due will not normally be considered unless there are exceptional reasons for not doing so. Evidence and a completed claim form must be provided within five working days of the assessment deadline to support any such claims. If a claim is considered valid, an extension of a maximum of **ten working days** will normally be granted and the assessment must be submitted before this revised deadline. Any late submission of work for which there is no valid claim for extenuating circumstances but which is submitted within five working days of the initial deadline will receive a maximum grade of Pass.

Compensation

To be awarded the Jersey Progression Certificate it is expected that the learner achieves two core units and three option units and for the Jersey Progression Diploma a further two core units and three option units. However, it may be possible to award **compensation** for one incomplete unit in the Certificate and one incomplete unit in the Diploma if there are valid extenuating circumstances. This equates to a maximum of 20% compensation for each qualification. The decision to award compensation rests with the Award Board. Where a unit is compensated, this will be shown on the learner transcript.

Valid extenuating circumstances

Medical illness or serious injury which has a severe impact on work and can be evidenced by a GP/Doctor

Extreme personal problems

Bereavement of a close family member or close friend

Not valid

Coughs, colds, sore throats or other minor illnesses

Illness affecting relatives or friends would not be considered a valid reason unless it is serious or you are the main carer

Making personal arrangements such as holiday arrangements, medical appointments, etc., which conflict with the examination and assessment timetable

Transport problems

Computer problems including submission of the wrong file, computer malfunction, etc.

Alarm clock not going off

Misreading the timetable and/or failing to attend at the right time and in the right place

Non-submission of work

Lateness or absence from assessment sessions

Moving house

Sanctions imposed for being in breach of college regulations.

Student academic appeal procedure

If a learner disagrees with an assessment decision the procedure outlined below will be followed. Please note an appeal can only be based on the achievement/non-achievement of the specific criteria related to that assessment.

Stage One: Informal

If a learner disagrees with the assessment decision of an assessor, the learner must discuss this with the assessor within a period of five working days following the assessment decision. If the matter is unresolved then the issues should be documented on a Candidate Appeal Form (see Appendix II) before moving to Stage Two.

Stage Two: Formal

The internal verifier should review the assessment decision within five working days and notify the learner in writing. The learner agrees or disagrees with the outcome, in writing, within a period of five working days and if the matter is unresolved Stage Three takes effect.

Stage Three: Appeal Hearing

The College Registrar or their nominee will hear the appeal within a period of ten working days. The panel at the Appeal Hearing will also include the Head of Department, the original assessor and the internal verifier. The learner can choose to be accompanied by a friend, parent or guardian. The panel will inform the learner of the outcome of the hearing, both orally and in writing, within five working days.

Academic malpractice policy

Academic malpractice can be defined as any attempt to gain unfair advantage in the assessment process of a qualification and therefore manipulate the grades which might be achieved. Malpractice may be intentional or unintentional, however, the college policy on malpractice does not consider whether there is intention to deceive or not.

Examples of malpractice include:

- allowing someone else to complete the assignment;
- copying another learner's work (with or without their permission);
- copying anything from the internet or from an article or book without acknowledging the author; or
- failure to reference sources correctly.

All assessed work must be solely the own work of the learner and learners must sign an assessment cover sheet before submission to confirm this.

The College supports learners in the avoidance of malpractice by helping them to develop appropriate academic skills through the initial part of their studies. This includes tuition on how to carry out and record research, writing skills and referencing.

The College takes academic malpractice very seriously and has produced a full policy which outlines what is deemed as malpractice, the process the college will use to investigate its occurrence and the sanctions which may be imposed if malpractice is proven. The policy and guidelines relating to academic malpractice can be found on the College Intranet.

Access arrangements and reasonable adjustments

The College takes its commitments under the Discrimination (Jersey) Law 2013 very seriously and works to create equal access for learners through the provision of information, advice, guidance and, where appropriate, additional support to meet individual needs and situations.

If you have a recognised learning need, medical condition or disability which affects your ability to study, complete assessments or sit examinations, you must bring this to the attention of your tutor. They will advise you on the best course of action in accordance with the Highlands College Special Educational Needs and Equality, Diversity and Inclusiveness policies. These College policies have been developed to take account of the published policies and regulations of the Joint Council for Qualifications. Under these policies you may qualify for access arrangements, reasonable adjustments or additional support when studying or undertaking assessed work. Any such claims must be made in a timely manner and supported by appropriate evidence and documentation.

Section B

Unit Content

and

assessment

guidance

Structure of the Jersey Progression Qualification in Building Services

Unit No.	Unit Title	Core/Option
1	Performing Simple Building Services Tasks	Core
2	Health and Safety in Building Services	Core
3	Carrying Out Building Services Installations	Core
4	Working in the Industry	Core
<p>The Jersey Progression Certificate requires learners to achieve unit 1 or 3 and unit 2 or 4.</p> <p>The Jersey Progression Diploma requires learners to achieve the remaining two core units.</p>		
5	Common Processes in Building Services	Option
6	Measurement and Drawing in Building Services	Option
7	Exploring Basic Fabrication Techniques in Building Services	Option
8	Exploring the Building Services Industry	Option
9	Developing Fabrication Techniques in Building Services	Option
10	Scientific Principles used in Building Services	Option
<p>The Jersey Progression Certificate requires learners to achieve unit 1 or 3 and unit 2 or 4 and a further three option units.</p> <p>The Jersey Progression Diploma requires learners to achieve the remaining two core units and a further three different option units from those achieved for the Certificate.</p>		

Unit 1 Performing Simple Building Services Tasks

Unit summary

This unit will give you the opportunity to perform simple building services tasks in simulated situations reflecting actual site conditions. You will use the skills learned in previous units to prepare work surfaces and produce layout plans in order to carry out the installation of some common building services components.

Guided learning hours

48 hours

Level

2

This core unit is synoptic.

Learning outcome 1

The learner will: Understand how to carry out routine building services tasks.

The learner must know about:

- Ways of using layout drawings, scale drawings and producing materials lists
- The use of manufacturers' literature when planning building services tasks
- Accurately producing material cutting lists from drawings.

Learning outcome 2

The learner will: Carry out the safe installation of building services components.

The learner must demonstrate:

- Use of correct preparation techniques for building fabrics
- The safe use of materials, tools and equipment when carrying out routine building services tasks
- The ability to carry out routine building services tasks to required tolerances.

Learning outcome 3

The learner will: Modify tasks in response to deviation of plans.

The learner must consider:

- How to respond to changes in design briefs with minimum impact
- The impact that changes to design briefs has on customers and trades
- Re-use of materials where appropriate.

Grading descriptors

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Pass:</p>	<p>LO1: Understand how to carry out routine building services tasks. Learners will interpret manufacturer’s literature and produce a competent drawing of component layout and materials list with some accuracy</p> <p>LO2: Carry out the safe installation of building services components. Learners will safely carry out routine building services installation in accordance with specification, achieving the minimum standard of the set tolerances</p> <p>LO3: Modify tasks in response to deviation of plans. Learners will satisfactorily identify how to make changes in response to deviation and then make changes</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Merit:</p>	<p>LO1: Understand how to carry out routine building services tasks. Learners will interpret manufacturer’s literature and produce a detailed drawing of component layout and materials list that is mostly accurate</p> <p>LO2: Carry out the safe installation of building services components. Learners will safely carry out routine building services installation in accordance with specification achieving medium standard of the set tolerances</p> <p>LO3: Modify tasks in response to deviation of plans. Learners will confidently identify how to make changes in response to deviation and then effectively make changes</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Distinction:</p>	<p>LO1: Understand how to carry out routine building services tasks. Learners will interpret manufacturer’s literature and produce a comprehensive drawing of component layout and materials list with a high level of accuracy</p> <p>LO2: Carry out the safe installation of building services components. Learners will safely carry out routine building services installation in accordance with specification achieving maximum standard or higher of the set tolerances</p> <p>LO3: Modify tasks in response to deviation of plans. Learners will confidently identify how to make changes in response to deviation and then effectively and efficiently make changes</p>

Assessment

The assessment for this unit consists of:

LO1 Working to a brief and with the aid of manufacturer's literature, the learner will produce a layout diagram of a proposed installation of building services components. The learner will produce a materials list based on the drawing produced.

LO2 The learner will carry out a practical task that involves the fixing of the building services components on to designated building fabric.

LO3 The learner will then be required to identify how to modify the installation in response to a change in the brief and then carry out the changes.

Types of evidence

LO1 Production of a drawing showing component layout. Completed materials requisition

LO2 The completed practical task will be assessed by the assessor against given tolerances

LO3 Written or verbal report detailing proposed changes to installation

Delivery guidance

Learners will be expected to draw on the knowledge and skills developed during previous units and apply them when carrying out the installation of some common building services components. Prior to the assessment, time will be spent in the classroom looking at the different fixing techniques required for various building fabrics. Learners will be encouraged to refer to manufacturer's literature relating to the fixing and specifying of common building services components such as switches, sockets, taps, brackets and valves. Using the correct terminology when specifying components is important.

Learners should be familiar with ways of using layout drawings to enhance accuracy of material fabrication; interpretation of scale drawings for accurate measurement, producing materials lists from drawings, and use of scale drawings to use as templates for fabrication. They should be aware of the importance of manufacturers' literature when preparing to fix building services components to building fabrics; interpretation of manufacturer's information to plan and prepare fixings, sourcing of manufacturer's instructions, and the use of templates for fixing points. They should learn how to accurately produce material cutting lists from drawings; scaling up from drawings to accurate measurements, standard lengths of materials, allowances for bends etc., and cost savings due to accuracy of specifying correct amounts of material.

Learners should be made aware of the importance of accurate drawings when producing component and materials lists and should practice producing component lists from various building drawings. During practical sessions, the learners will look at different building fabrics such as brickwork, blockwork, plaster, wood, plasterboard and tiling and how different fixing methods are used depending on the fabric.

Learners will respond to changes in a brief and be able to modify an installation if required with minimum impact in terms of time, materials and costings. They should know about; deviation agreements, costing of extra materials, comparisons of material against labour costs, work carried out by other trades, schedules of work. Problem solving is a useful skill for operatives in this vocation. This can be facilitated by keeping completed jobs from previous units and asking learners to carry out modifications on them. They should be aware of the impact that changes to design briefs have on customers and associated trades and should re-use materials where appropriate; decommissioning of building services equipment and components, recycling of materials and components, safe storage

Unit 2 Health and Safety in Building Services

Unit summary	This unit provides you with the essential health and safety knowledge required to prepare you to work safely in the building services industry. The knowledge covered relates to work carried out in a construction environment.
Guided learning hours	48 hours
Level	2

Learning outcome 1

The learner will: Demonstrate their understanding of health and safety legislation and procedures in the building services industry

The learner must know about:

- Health and safety legislation; (U.K. and Jersey) and good practice.
- Hazardous situations
- Electrical safety measures
- Safe use of access equipment.

Learning outcome 2

The learner will: Apply safe working practices and procedures when carrying out tasks related to the building services industry

The learner must demonstrate:

- The ability to identify hazards
- Safe manual handling
- Safe use of access equipment
- The ability to make basic electrical checks

Learning outcome 3

The learner will: Review the risks associated with the practical tasks and produce associated risk assessments.

The learner must consider:

- Health and safety legislation
- Carrying out risk assessments and producing appropriate paperwork.

Grading descriptors

Pass:	<p>LO1: Pass the Jersey Safety Council Passport to Safety on-line multiple choice test.</p> <p>LO2: Apply safe working practices and procedures when carrying out tasks related to the building services industry</p> <p>Learners will select and use appropriate manual handling techniques and access equipment for given scenarios and identify some hazards</p> <p>LO3: Review the risks associated with the practical tasks and produce associated risk assessments.</p> <p>Learners will describe the risks associated with the tasks and produce appropriate risk assessments.</p>
Merit:	<p>LO3: Review the risks associated with the practical tasks and produce associated risk assessments.</p> <p>Learners will give a detailed description of the risks associated with the tasks and produce detailed risk assessments.</p>
Distinction:	<p>LO3: Review the risks associated with the practical tasks and produce associated risk assessments.</p> <p>Learners will give a comprehensive description of the risks associated with the tasks and produce detailed risk assessments.</p>

Assessment

The assessment for this unit consists of:

LO1: A multiple choice exam and the learner will be required to pass the exam in order to be deemed as being able to work safely in the building services industry

LO2: A practical assessment requiring the learner to identify a range of hazardous situations in a workshop including the safe selection and use of appropriate access equipment and manual handling techniques for given scenarios. 'Pass' only outcome.

LO3: This outcome will require the learner to reflect on the health and safety risks associated with the tasks carried out for outcome two and then produce appropriate risk assessments that minimise the risk factors of at least three of the tasks

Types of evidence

LO1: Successful completion of the Passport to Safety test

LO2: Oral assessment of hazards, access equipment and manual handling techniques

LO3: Three completed risk assessments

Delivery guidance

The most important requirements of this unit are that learners are given opportunities to develop health, safety and welfare awareness in construction environments. They will undertake practical and theoretical tasks relating to health and safety activities throughout the unit. Particular attention should be given to electrical safety with learners being made aware of the potential dangers associated with unsafe isolation and faulty equipment such as exposed conductors, damaged insulation, worn electrical cables and cords, trailing cables, proximity of cables, buried/hidden cables.

Learners should be aware of all relevant current Health and safety legislation; (U.K. and Jersey) and good practice. They should know about hazardous situations such as, slippery or uneven surfaces, presence of dust and fumes, contaminants and irritants, fire, working at heights, malfunctioning equipment, improper use and storage of tools and equipment, and potential presence of asbestos. They should make safe use of access equipment such as ladders, crawling boards, scaffolds and edge protection, mobile elevated work platforms including scissor lifts and cherry pickers, telescopic ladders. The teacher should demonstrate the correct procedures for erecting access equipment, with each learner experiencing the challenges of erecting and working off this kind of equipment.

They should learn how to make basic electrical checks e.g. applying temporary continuity bonding when cutting into a fixed metallic pipework system, safely isolating an item of fixed mechanical or electrical plant or equipment, and carrying out a visual safety inspection of power tools before use. They must know about and use personal protective equipment (PPE) this will be done in practical scenarios which will include the correct manual handling of different objects and materials e.g. moving heavy/bulky items, performing a two-person lift, and using mechanical lifting aids.

Learners will be introduced to risk assessments through live scenarios, giving them an understanding of their importance in every construction situation. They will benefit from exposure to a range of visual resources for example video clips, the "Clickview" digital library resources and the HSE website.

Unit 3 Carrying Out Building Services Installations

Unit summary	This unit is about creating an installation relating to building services in response to a client brief. You will use the skills you have learnt during previous units in order to carry out the necessary planning, preparatory work and fabrication methods required to produce a realistic, working plumbing/electrical installation
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Guided learning hours	48 hours
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Level	2
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This core unit is synoptic.

Learning outcome 1

The learner will: Plan and prepare to carry out a building services installation

The learner must know about:

- Selecting the appropriate materials required for a specified building services installation (copper, steel, plastic)
- Sourcing the correct tools and equipment required for a specified building services installation

Learning outcome 2

The learner will: Carry out the safe installation of a plumbing and electrical system.

The learner must demonstrate:

- The competent use of materials, tools and equipment when carrying out plumbing and electrical installations
- The ability to carry out plumbing and electrical installations to required tolerances
- Safe working practices when carrying out installations

Learning outcome 3

The learner will: Analyse performance test results for building services systems.

The learner must consider:

- Appropriate testing methods for building services installations
- Performance testing of plumbing and electrical systems against design briefs
- Reasons for conflicting test results
- Remedial action in the result of inconsistent test results

Grading descriptors

Pass:	<p>LO1: Plan and prepare to carry out a building services installation. Identify, using some technical terms, the components, tools and equipment required to carry out a building services installation in accordance with a specification</p> <p>LO2: Carry out the safe installation of a plumbing and electrical system. Learners will safely carry out a building services installation in accordance with a specification, achieving within minimum set of tolerances</p> <p>LO3: Analyse performance test results for building services systems. Installation is tested correctly and test results compared with a specification.</p>
Merit:	<p>LO1: Plan and prepare to carry out a building services installation. Identify, using a range of technical terms, the components, tools and equipment required to carry out a building services installation in accordance with a specification</p> <p>LO2: Carry out the safe installation of a plumbing and electrical system. Learners will safely carry out a building services installation in accordance with a specification, achieving within medium set of tolerances</p> <p>LO3: Analyse performance test results for building services systems. Installation is tested correctly and test results compared with a specification. Learners identify at least one suitable reason for conflicting results and explain relevant remedial action.</p>
Distinction:	<p>LO1: Plan and prepare to carry out a building services installation. Identify, using consistently and correctly, a wide range of technical terms, the components, tools and equipment required to carry out a building services installation in accordance with a specification</p> <p>LO2: Carry out the safe installation of a plumbing and electrical system. Learners will safely carry out building services installation in accordance with a specification achieving within maximum set of tolerances</p> <p>LO3: Analyse performance test results for building services systems. Installation is tested correctly and test results compared with a specification. Learners identify at least one suitable reason for conflicting results and explain relevant remedial action and are able to evidence the impact of the faults on system performance.</p>

Assessment

The assessment for this unit consists of:

LO1: Working to a design brief, learners will identify and list the correct tools, materials and equipment required to carry out building services installations that will include both plumbing and electrical systems.

LO2: Learners will carry out the installation, in accordance with the brief, under controlled conditions in a workshop environment. The practical installation will be graded using a set of tolerances that represent a graduating degree of accuracy with the completed installation being measured against these tolerances.

LO3: Learners will carry out performance tests on the systems in accordance with relevant standards and record the results. They will be orally questioned in relation to conflicting test results and remedial action.

Types of evidence

LO1 Suitable materials, equipment and tool list

LO2 The completed practical task will be assessed by the assessor against given tolerances.

LO3 Completed performance test paperwork and record of oral questioning.

Delivery guidance

The learners will be expected to draw on the knowledge and skills developed during previous units and apply them when carrying out the installation of a plumbing and electrical system.

Prior to the assessment, time will be spent in the classroom, explaining the purpose of a comprehensive design brief and how information is extracted from one to aid the identification of materials, equipment and tools required to complete the work. Learners can familiarise themselves with the terminology used in the industry using existing briefs and accessing suppliers' websites to identify likely materials and tools.

The learner will be encouraged to practice their practical skills in order to ensure the installation assessment work is carried out to required tolerances.

Some of the hours allocated to teaching will be used to reinforce the importance of correct test procedures for building services installations, with an emphasis on comparing system performance with relevant standards. Learners would be expected to know how performance data is recorded and what faults can occur during testing and this can be delivered in a workshop environment using existing systems. They must be able to identify correct remedial procedures and manufacturers' instruction manuals can be a useful resource.

Unit 4 Working in the Industry

Unit summary	This unit will develop your readiness for the world of work. Through research activities you will develop an awareness of your industry sector and the opportunities that may be open to you. You will assess your current employability skills, plan for a placement and subsequently embark on work experience. This unit concludes with an opportunity to re-assess your skill set and the progress made.
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Guided hours	48 hours
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Level	2
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Learning outcome 1

The learner will: Identify current employability skills and plan for an industry relevant work placement.

The learner must know about:

- Employability skills and employment opportunities in their industry.
- Curriculum vitae (CV) and covering letters.
- Interview skills.

Learning outcome 2

The learner will: Carry out an industry relevant work placement.

The learner must demonstrate:

- Planning skills
- Communication skills
- Self-management skills
- Team work skills
- Problem solving skills
- Decision making skills

Learning outcome 3

The learner will: Review the progress made in developing employability skills during the placement period and how this has influenced their plans for the future.

The learner must consider:

- Their current employability skills
- The progress made from their work experience
- The impact of their work experience on improving their employability skills
- How their work experience placement has influenced their plans for the future

Grading descriptors

Pass:

LO1: Identify current employability skills and plan for an industry relevant work placement.

- Identify current employability skills, their strengths and areas for development.
- Identify three employment options in the sector
- Complete preparation for an appropriate work placement including a basic C.V., covering letter and demonstration of adequate interview skills.

LO2: Carry out an industry relevant work placement.

- Complete an appropriate work placement with a satisfactory outcome.
- Complete a daily work placement portfolio demonstrating some degree of accuracy against the brief.

LO3: Review the progress made in developing employability skills during the placement period.

- Identify a range of strengths and areas for development in employability skills and provide evidence to support this.
- Outline basic ways to improve the employability skills.
- Outline how their placement has influenced their plans for the future

Merit:

LO1: Identify current employability skills and plan for an industry relevant work placement.

- Identify current employability skills, strengths and areas for improvement with explanations of these.
- Identify and describe the job roles of at least 3 employment options in the sector
- Complete tailored preparation for an appropriate work placement including a tailored C.V., appropriate covering letter and demonstration of good interview skills.

LO2: Carry out an industry relevant work placement.

- Complete an appropriate work placement with a satisfactory outcome.
- Complete a daily work placement portfolio demonstrating mostly accurate information against the brief.

LO3: Review the progress made in developing employability skills during the placement period.

- Identify a range of strengths and areas for development in employability skills and provide evidence to support this.
- Outline advanced ways to improve the employability skills.
- Describe how their placement has influenced their plans for the future

Grading descriptors

Distinction:

LO1: Identify current employability skills and the appropriate employability options in the industry.

- Identify current employability skills, outline strengths and areas for improvement with detailed explanations of each.
- Identify and evaluate several employment options in the sector.
- Complete thorough and appropriate preparation for a work placement including a detailed C.V., covering letter and demonstration of excellent interview skills.

LO2: Carry out an industry relevant work placement.

- Complete an appropriate work placement with a satisfactory outcome.
- Complete a daily work placement portfolio with accurate information against the brief.

LO3: Review the progress made in developing employability skills during the placement period.

- Identify a range of strengths and areas for development in employability skills, recognise their relative importance and provide evidence to support this.
- Describe advanced ways and develop ideas to improve the employability skills.
- Give detailed account of how their placement has influenced their plans for the future

Assessment

The assessment for this unit requires the completion of:

1. an online employability skills assessment via “Navigate” under controlled conditions. This will be completed during the first week of course.
2. pre-placement planning and preparation including a C.V., covering letter.
3. allocated days of work placement at a time appropriate for industry, the course and the learner.
4. a daily work placement journal.
5. a second online employability skills assessment (following placement) via “Navigate” under controlled conditions demonstrating the progress made since the first employability skills assessment.
6. A review task in the form of an interview under controlled conditions

Timing of assessment tasks:

- Employability skills assessment
- Completion of pre-placement paperwork
- Completion of work placement (minimum 5 days)
- Maintenance of work placement journal
- Reassessment of employability skills post placement under controlled conditions
- Controlled assessment in the form of interview to reflect on unit, work experience and plans for the future.

Types of evidence

The evidence for this unit consists of:

1. The results of an online employability skills assessment.
2. Pre-placement planning and preparation including a C.V., covering letter, and evidence of interview skills.
3. Completion of allocated days of work placement.
4. A daily work placement journal.
5. The results of a second online employability skills assessment (following placement).
6. An observed interview carried out by an examiner.

Delivery guidance

The focus of this unit is the professional approach required by learners when applying for any form of employment, work experience or voluntary position. Learners will be given the opportunity to complete sufficient time in a placement to ensure that they have been able to develop their employability skills and knowledge of the industry/work place. This unit will be delivered by a combination of e-learning through the online platform Navigate, tutor input, visiting speakers from the industry and work placement supervisors.

Learners will need to know about their current employability skills. They will complete an online skills questionnaire and set targets on Navigate. These will be discussed with their tutor. Learners will research into employment opportunities, both on and off the island, through tutor taught sessions, visiting speakers from the industry and research on line. Research should include knowledge of specific recruitment methods for industry and the part social media plays in job searching. Learners will identify appropriate opportunities linked to personal analysis through a career planning computer package e.g. Adult Directions accessed through Navigate and e-learning sessions.

Learners will prepare for their placement through taught sessions and Navigate. They will identify appropriate placement organisations, matching job description and person specification to skills, abilities and qualities. They will learn how to develop a relevant CV, complete an application form and produce an effective covering letter. They will demonstrate effective interview techniques and develop a knowledge of expectations and appropriate behaviours for placement.

Learners will complete a relevant and appropriate work placement and produce a daily placement journal through Navigate which will be verified by the placement supervisor and personal tutor. After the placement, learners will complete: an online placement review; a review of skills; and an updated C.V. They will identify their strengths and areas for development appropriate to employment in the industry.

Unit 5 Common Processes in Building Services

Unit summary	This unit will provide you with the knowledge, understanding and skills required to safely use tools when carrying out common processes associated with building services. You will develop your hand skills while working on a variety of different building fabrics and materials using both hand and power tools
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Guided learning hours	48 hours
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Level	2
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This unit is optional.

Learning outcome 1

The learner will: Identify different tools and materials required to safely carry out practical processes in building services

The learner must know about:

- The selection, safe use and maintenance requirements of hand tools
- The safe use of power tools; drill, hammer drill, pillar drill, electric screwdriver, jig saw
- Materials used in building services.

Learning outcome 2

The learner will: Use common hand tools and materials to safely carry out building services processes

The learner must demonstrate:

- The safe use of hand tools when carrying out tasks on a variety of materials.
- The safe use of power tools when carrying out tasks on a variety of materials.

Learning outcome 3

The learner will: Review the choice of tool and material selection when carrying out processes in building services.

The learner must consider:

- The importance of selecting the correct tool for the job
- Why they used their selected materials and tools
- The significance of tool maintenance

Grading descriptors

<p style="text-align: center;">Pass:</p>	<p>LO1: Identify different tools and materials required to safely carry out practical processes in building services.</p> <p>Learners will state the purpose of different materials and common hand tools found in Building Services</p> <p>LO2: Use common hand tools and materials to safely carry out building services processes</p> <p>Learners will confidently safely perform operations with common hand tools and materials, for an identified purpose</p> <p>LO3: Review the choice of tool and material selection when carrying out processes in building services.</p> <p>Learners will briefly describe why they chose their selected tools and materials and the maintenance requirements of a limited range of common tools</p>
<p style="text-align: center;">Merit:</p>	<p>LO2: Use common hand tools and materials to safely carry out building services processes</p> <p>Learners will competently safely perform operations with common hand tools and materials, for an identified purpose</p>
<p style="text-align: center;">Distinction:</p>	<p>LO2: Use common hand tools and materials to safely carry out building services processes</p> <p>Learners will skilfully safely perform operations with common hand tools and materials, for an identified purpose</p>

Assessment

The assessment for this unit consists of:

LO1 and LO2 Working to a brief, the learner will select and use the correct tools and materials required to carry out practical tasks shown in picture form to a given tolerance. The tasks will be detailed in a work book. The work book will also contain questions requiring short written answers to describe and explain the purpose of materials and hand tools

LO3 A post task written assessment (completed in one hour supervised conditions using own notes as a prompt) reviewing the correct choice of tools and materials for the practical processes and maintenance requirements for the chosen tools.

Types of evidence

LO1 and LO2 completed workbook evidencing the successful completion of practical processes against the given tolerances and the written answers relating to the purpose of tools and materials

LO3 Written evidence relating to the choice, use and maintenance of tools

Delivery guidance

The purpose of this unit is to introduce the learner to the various hand and power tools that are widely used in the building services industry. This unit will be delivered at the start of the course as safe tool use is a fundamental requirement. The delivery will take place, predominately, in a practical environment with the learner initially introduced to the range of tools they will be using, followed by demonstrations of safe use. The tutor will devise various tasks that enable the learners to become familiar with using the tools and learners will be made aware of the importance of choosing the correct tool for the task. Hand tools should include; steel rule, measuring tape, plumb lines, cable cutters, pliers, screwdrivers, wire strippers, knives, files, reamers, wrenches, hammer, saws, chisels, spanners, and spirit levels. Power tools should include drill, hammer drill, pillar drill, electric screwdriver, and jig saw.

It is important that time is made available to allow the learners to become well practiced with tool use as their development in this unit will lead to greater success in subsequent units. The tool use will cover a wide range of applications to avoid learners being restricted to limited use.

Health and safety is a theme that will run through most of the units, especially when introducing the use of power tools, the tutor must pay close attention to safe use of these tools and closely supervise. Hand and power tools when carrying out tasks on a variety of materials e.g. lifting and cutting floorboards, notching and drilling joists, and measuring, cutting pipe/conduit/trunking, fixing clips/brackets, assembling components.

When looking at different materials used in the construction industry, site visits could be an option as could be walking around the college site itself. Learners, during their working life would expect to come into contact with traditional materials as well as modern day fabrics and this should be accounted for during delivery. Materials used should include copper, steel, uPVC, wood, brick, tile, concrete, plaster, metals, and plastic.

The department must provide examples of damaged and poorly maintained tools to demonstrate the perils of using such equipment and tutors should demonstrate how to maintain tools to keep them in good working order.

Unit 6 Measurement and Drawing in Building Services

Unit summary	This unit will provide you with the knowledge, understanding and skills required when producing and interpreting drawings and measurements used in the construction. You will be introduced to the equipment used in the production of construction drawings. You will carry out basic drawing and measuring tasks commonly used in the construction industry
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Guided learning hours	48 hours
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Level	2
--------------	----------

Learning outcome 1

The learner will: Identify equipment and materials used to produce construction drawings

The learner must know about:

- Measurement used in the construction industry
- Basic equipment used to produce construction drawings
- Types of construction drawings
- Scales and detailing.

Learning outcome 2

The learner will: Apply common drawing and measuring practices to produce construction drawings.

The learner must demonstrate:

- Correct use of scales in construction drawings
- Correct use of appropriate equipment in construction drawings
- Correct use of accurate measurements in construction drawings.

Learning outcome 3

The learner will: Review the choice of equipment and materials when carrying out drawing tasks in the construction industry.

The learner must consider:

- How the work produced has met the brief
- Why they used their selected materials, equipment and drawing methods
- The strengths and weaknesses of the finished drawings
- Ways that the work might be improved or extended in the future.

Grading descriptors

Pass:	<p>LO1: Identify equipment and materials used to produce construction drawings</p> <p>Describe how common drawing equipment, materials, measurement and scales are used in construction.</p> <p>LO2: Apply common drawing and measuring practices to produce construction drawings.</p> <p>Apply appropriate skills with some accuracy to the creation of technical drawings</p> <p>LO3: Review the choice of equipment and materials when carrying out drawing tasks in the construction industry.</p> <p>Describe the processes and practices involved in construction drawing and identify some strengths and weaknesses with mostly appropriate evidence.</p>
Merit:	<p>LO2: Apply common drawing and measuring practices to produce construction drawings. Apply appropriate skills with mostly accurate creation of technical drawings.</p>
Distinction:	<p>LO2: Apply common drawing and measuring practices to produce construction drawings.</p> <p>Consistently and correctly applies a wide range of accuracy to the creation of technical drawings.</p>

Assessment

The assessment for this unit consists of:

LO1 Completion of a workbook with questions requiring short written answers relating to the use of equipment and scales in drawing.

LO2 The production of technical construction drawings in a timed period, meeting the standards set in relation to scales and accuracy

LO3 Completion of a workbook with questions requiring short written answers relating to process and practices, strengths and weaknesses in drawing.

Types of evidence

LO1 Workbook with answers on the use of equipment and scales in drawing, descriptions of the processes and practices and strengths and weaknesses in drawing

LO2 Portfolio of construction drawings consisting of:

- Drawing to scale
- Measuring to scale
- Construction drawing symbols
- Different types of projections

LO3 A workbook with short written answers relating to process and practices, strengths and weaknesses in drawing.

Delivery guidance

This unit provides the learner with the knowledge, understanding and skills needed to produce construction related drawings. Learners will develop their hand skills to produce manual drawings and will also be introduced to the range of computer aided packages that could be utilised. These would not form part of any assessment. It is important that the teacher allows the learner to practise the techniques; some of the directed study allocated should be used for this purpose. Learners will be encouraged to apply the knowledge they have learned on other construction units to aid their progress. The tutor will contextualise the drawings so that learners can see where they fit in to the construction process.

The teacher will be able to make reference to existing construction drawings relating to local projects. The tutor should emphasise the importance of accuracy and consistency when producing drawings and time should be spent consolidating the basic skills. At the beginning of the unit the focus will be on principles of measurement, basic setting out of borders and title panels and then progress through to more complex drawings using scales and differing projections. The concept of scales and projections should be introduced where appropriate and the use of three dimensional models is recommended.

Measurement used in the construction industry should cover length (mm and m), area (m²), volume (m³). Basic equipment used to produce construction drawings should include drawing board, 45° set square, 30/60 set square, T-square, pencils, eraser, drawing board clips, masking tape, ruler, compass. Access to computers with the appropriate software packages should be available.

Types of construction drawings might include location drawings, assembly drawings, component drawings, block plans, site plans, orthographic projection, and isometric projection. Scales and detailing should cover (1:1, 1:2, 1:5, 1:10, 1:20, 1:50, 1:100, 1:1250, 1:2500), hatchings: brickwork, blockwork, pipework, cables and components insulation, centre/grid/ break/ section lines, outlines, dimension lines, and hidden detail.

Unit 7 Exploring Basic Fabrication Techniques in Building Services

Unit summary

This unit will provide you with the knowledge, understanding and skills required to carry out straightforward fabrication techniques commonly used in plumbing. You will be introduced to the specialist equipment used for simple bending and jointing of tubes and connecting of plumbing components.

Guided learning hours

48 hours

Level

2

Learning outcome 1

The learner will: Identify the different basic fabrication, jointing and connecting techniques required when carrying out straightforward tasks.

The learner must know about:

- Tools and equipment required for basic fabrication of plumbing components
- Basic fabrication techniques.
- Simple jointing/connecting methods.

Learning outcome 2

The learner will: Carry out basic fabrication, jointing, and connection tasks.

The learner must demonstrate:

- The safe use of equipment and common materials.
- Accurate measuring when carrying out preparatory work prior to fabricating materials.
- Practical competence in the performing of basic, fabrication, jointing and connecting techniques.

Learning outcome 3

The learner will: Review the choice of equipment and fabrication techniques when carrying out the practical tasks.

The learner must consider:

- The importance of selecting the correct equipment for the job.
- Why they used their selected fabrication techniques.
- The importance of equipment maintenance.

Grading descriptors

Pass:	<p>LO1: Identify the different basic fabrication, jointing and connection techniques required when carrying out straightforward tasks.</p> <p>Learners will describe the equipment required and the techniques used to carry out basic fabrication techniques on different materials.</p> <p>LO2: Carry out basic fabrication, jointing and connection tasks.</p> <p>Learners will confidently perform basic fabrication techniques of materials using common equipment and tools</p> <p>LO3: Review the choice of equipment and fabrication techniques when carrying out the practical tasks.</p> <p>Learners will briefly describe why they chose their selected equipment and materials and include maintenance requirements of a basic range of equipment</p>
Merit:	<p>LO2: Carry out basic fabrication, jointing, wiring and termination tasks.</p> <p>Learners will competently perform basic fabrication techniques of materials using common equipment and tools</p>
Distinction:	<p>LO2: Carry out basic fabrication, jointing, wiring and termination tasks.</p> <p>Learners will skilfully perform basic fabrication techniques of materials using common equipment and tools</p>

Assessment

The assessment for this unit consists of:

LO1 Working to a set of pre-produced drawings, the learner will select, use and justify the correct equipment and tools required to carry out a series of basic tasks relating to fabrication of materials commonly used in building services.

LO2 The learner will be assessed on each of the practical tasks that will be collated in the form of a workbook.

LO3 The workbook will contain a series of written questions, requiring short written answers, relating to tool choice, fabrication techniques and maintenance along with tool description and techniques.

Types of evidence

LO1 Completed workbook containing details of tools and equipment selection.

LO2 Assessor observation.

LO3 Completed workbook containing answers to questions reviewing the practical tasks.

Delivery guidance

This is a predominantly practical unit. Learners will build on previous learning and are assumed to have developed some hand skills with basic tools. The teacher should demonstrate the use of specialist bending, connection and jointing equipment as well as the associated maintenance. A practical workshop, suitably stocked with appropriate tools and equipment will be used.

Specialised equipment required for basic fabrication should include scissor bending machine, copper stand bending machine, internal spring, soldering equipment, hand tools. Basic fabrication techniques should include the 90 degree and 45 degree bend, off-set, and clipping techniques, using common materials (copper, plastic, PVC, conduit). Simple jointing methods should include threaded, soldered, solvent weld, push-fit high low pressure, press-fit and compression jointing.

Practical tasks should make safe use of equipment such as scissor bending machine, copper stand bending machine, internal spring, soldering equipment, hand tools. Accurate measuring should be used when carrying out preparatory work prior to fabricating materials.

Teachers should contextualise the tasks learners are carrying out - examples of system installations carried out by more advanced learners could be used. It is important that work produced by learners is presented in a neat fashion as this is what would be expected in the workplace, learners should work in an organised, tidy fashion and clean their work prior to assessment. Teachers should set the learner a series of training tasks that should be completed to a competent standard before the learner is deemed ready for assessment.

When reviewing the practical tasks, learners should consider the importance of selecting the correct equipment for the job, misuse of tools and equipment, and health and safety legislation. They should explain why they used their selected fabrication techniques with reference to properties and costs of materials, frictional loss, and maintenance. They should be aware of the importance of equipment maintenance; preventative and reactive maintenance, and storage of tools and equipment.

Unit 8 Performing Basic Maintenance Operations

Unit summary	This unit will provide the learner with the knowledge, understanding and skills required to carry out straightforward techniques commonly used in construction. Learners will be introduced to the specialist equipment used for basic construction work
Guided learning hours	48 hours
Level	2

This unit is optional.

Learning outcome 1

The learner will:

Identify basic tiling, dry lining and plastering techniques required when carrying out basic maintenance operations

The learner must know about:

- The various items of specialised equipment required for basic maintenance work; trowels, levels, scrim, plaster, adhesive, spreaders, cordless screwdriver
- Basic maintenance techniques; cutting to length, sanding and filling, mixing plaster and adhesive, using common materials; plasterboard, tiles, timber, plywood

Learning outcome 2

The learner will:

Carry out basic maintenance techniques

The learner must demonstrate:

- The safe use of equipment (trowels, squares, levels, cutters, paints, plaster) when carrying out basic construction techniques.
- Use of common maintenance materials; plasterboard, grout, tiles, plywood, timber, mixing equipment
- Accurate measuring when carrying out preparatory work prior to using construction materials; use of SI units (mm, m) from scale drawings, marking out of materials
- Practical competence in the performing of basic maintenance techniques

Learning outcome 3

The learner will:

Justify the correct choice of equipment and maintenance techniques when carrying out tasks

The learner must consider:

- The importance of selecting the correct equipment for the job; correct tool selection, misuse of tools and equipment, health and safety legislation
- Why they used their selected construction techniques; properties of materials, costs of materials, strength, maintenance
- The importance of equipment maintenance; preventative and reactive maintenance, storage of tools and equipment

Grading descriptors

Pass:

LO1: Learners will describe the equipment required and the techniques used to carry out basic maintenance techniques on different materials found in construction

LO2: Learners will competently perform basic maintenance techniques of materials using common equipment and tools

LO3: Learners will briefly explain why they chose their selected equipment and materials and include maintenance requirements of the basic items of equipment needed.

Merit:

LO2: Learners will confidently perform basic maintenance of materials using common equipment and tools

Distinction

LO2: Learners will skilfully perform basic maintenance of materials using common equipment and tools

Assessment

The assessment for this unit consists of:

LO1: Working to a set of pre-produced drawings, the learner will be expected to select, use and justify the correct equipment and tools required to carry out a series of basic tasks relating to fabrication of materials commonly used in construction maintenance.

LO2: The learner will be assessed on each of the practical tasks that will be collated in the form of a workbook.

LO3: Throughout the unit students will be asked questions relating to tool choice, fabrication techniques and maintenance requirements

Types of evidence

The evidence consists of:

Assessor observation of practical tasks and marking recorded in completed workbook containing written and product evidence in accordance with brief

Delivery guidance

This is a predominantly practical unit that introduces the learner to the principles of basic maintenance of materials that are specific to the construction trades. The learners will build on previous learning and they should be assumed to have developed some hand skills relating to the use of basic tools. The teacher should demonstrate the use of specialist tiling, dry lining and plastering equipment as well as the associated maintenance. A practical workshop, suitably stocked with appropriate tools and equipment will be used.

The construction skills learners develop during this unit will be vital in terms of their employability. Whilst learners are practicing their construction techniques, the teacher must spend time ensuring they have grasped the basics before moving on. Teachers should contextualise the tasks learners are carrying out and examples of practical work carried out by more advanced learners could be used for this.

It is important that work produced by learners is presented in a neat fashion as this is what would be expected in the workplace, learners will be encouraged to work in an organised, tidy fashion and clean their work prior to assessment.

Teachers should set the learner a series of training tasks that should be completed to a competent standard before the learner is deemed ready for assessment.

Unit 9 Electrical

Unit summary

This unit will provide the learner with the knowledge, understanding and skills required to carry out basic fabrication techniques commonly used in electrical. Learners will be introduced to the specialist equipment used for connecting and jointing of cables and basic wiring and connecting of electrical equipment

Guided learning hours

48 hours

Level

2

This unit is optional.

Learning outcome 1

The learner will:

Identify the different, basic fabrication, jointing, wiring and terminating techniques required when carrying out basic tasks in electrical

The learner must know about:

- The various items of specialised equipment required for basic fabrication; (bending machine, hand tools, basic electrical test equipment)
- Basic fabrication techniques; (90-degree bend, 45-degree bend, off-set, cable stripping, formation of cable bends, clipping techniques) using common materials; (Copper, plastic, pvc, conduit)
- Basic jointing/terminating methods; (Threaded, simple terminations, etc)

Learning outcome 2

The learner will:

Carry out basic fabrication, jointing, wiring and termination tasks associated with electrical

The learner must demonstrate:

- The safe use of equipment (stand bending machine, internal spring, hand tools, basic electrical test equipment) when carrying out basic fabrication techniques (90 degree bend, 45 degree bend, off-set, cable stripping, formation of cable bends, clipping techniques) using common materials; (Copper, plastic, pvc, conduit)
- Accurate measuring when carrying out preparatory work prior to fabricating materials (Use of SI units (mm, m) from scale drawings, marking out of materials)
- Practical competence in the performing of basic, jointing, wiring and terminating techniques (Threaded, simple terminations.)

Learning outcome 3

The learner will:

Justify the correct choice of equipment and fabrication techniques when carrying out tasks in Building Service

The learner must consider:

- The importance of selecting the correct equipment for the job. (correct tool selection, misuse of tools and equipment, health and safety legislation)
- Why they used their selected fabrication techniques (Properties of materials, costs of materials, frictional loss, maintenance)
- The importance of equipment maintenance (Preventative and reactive maintenance, storage of tools and equipment,)

Grading descriptors

Pass:	<p>LO1: Learners will describe the equipment required and the techniques used to carry out basic fabrication techniques on different materials found in electrical</p> <p>LO2: Learners will perform basic fabrication of materials using common equipment and tools</p> <p>LO3: Learners will briefly describe why they chose their selected equipment and materials and include maintenance requirements of 2 items of equipment</p>
Merit:	<p>LO2: Learners will confidently perform basic fabrication of materials using common equipment and tools</p>
Distinction	<p>LO2: Learners will skilfully perform basic fabrication of materials using common equipment and tools</p>

Assessment

The assessment for this outcome consists of:

Working to a set of pre-produced drawings, the learner will be expected to select, use and justify the correct equipment and tools required to carry out a series of basic tasks relating to fabrication of materials commonly used in electrical. The learner will be assessed on each of the practical tasks that will be collated in the form of a workbook. The workbook will also contain a series of written questions relating to tool choice, fabrication techniques and maintenance

Types of evidence

Assessor observation, completed workbook containing written and product evidence in accordance with brief

Delivery guidance

This is a predominantly practical unit that introduces the learner to the principles of basic fabrication of materials that are specific to electrical. The learners will build on previous learning and they should be assumed to have developed some hand skills relating to the use of basic tools. The tutor should demonstrate the use of specialist bending, terminating and jointing equipment as well as the associated maintenance. A practical workshop, suitably stocked with appropriate tools and equipment will be used.

The fabrication skills learners develop during this unit will be vital in terms of their future employability in this industry. Whilst learners are practicing their fabrication techniques, the tutor should spend time ensuring they have grasped the basics before moving on. Tutors should contextualise the tasks learners are carrying out and examples of system installations carried out by more advanced learners could be used for this.

It is important that work produced by learners is presented in a neat fashion as this is what would be expected in the workplace, learners should be encouraged to work in an organised, tidy fashion and clean their work prior to assessment.

Tutors should set the learner a series of training tasks that should be completed to a competent standard before the learner is deemed ready for assessment.

Unit 10 Scientific Principles used in Building Services

Unit summary

This unit will provide you with the knowledge and understanding of basic scientific principles applied to building services. You will be introduced to pressure, force, flow, temperature, electricity and heat transfer methods. The unit is designed to provide essential theoretical knowledge that underpins the practical processes of the building services sector.

Guided learning hours 48 hours

Level 2

This unit is optional.

Learning outcome 1

The learner will: Understand basic scientific principles, including standard units of measurement and properties of materials.

The learner must know about:

- Standard units of measurement
- Properties of materials used in building services.
- Relationship between energy, heat and power.
- Principles of force and pressure and their application
- Simple mechanical principles and the principles of electricity

Learning outcome 2

The learner will: Apply simple scientific principles when working within building services.

The learner must demonstrate:

- How to apply scientific principles
- How to apply units of measurement accurately

Learning outcome 3

The learner will: Carry out straightforward testing and interpretation of completed tasks.

The learner must consider:

- Testing procedures
- Analysis of test results

Grading descriptors

Pass:	<p>LO1: Understand basic scientific principles, including standard units of measurement and properties of materials.</p> <p>Learners will recognise the basic scientific principles and units of measurement relating to the use of materials used in building services</p> <p>LO2: Apply simple scientific principles when working within building services.</p> <p>Confidently and mostly accurately apply the scientific principles and units of measurement when planning work on a variety of materials.</p> <p>LO3: Carry out straightforward testing and interpretation of completed tasks.</p> <p>Learners will perform basic testing of components, pipework and cables with relevant testing equipment and record results in correct format</p>
Merit:	<p>LO1: Understand basic scientific principles, including standard units of measurement and properties of materials.</p> <p>Learners will recognise the basic scientific principles and units of measurement relating to materials used in building services and perform simple calculations</p>
Distinction:	<p>LO1: Understand basic scientific principles, including standard units of measurement and properties of materials.</p> <p>Learners will recognise the basic scientific principles and units of measurement relating to materials used in building services and perform complex calculations</p>

Assessment

The assessment for this unit consists of:

LO1 Written, short answer assignment requiring the candidate to recognise scientific principles, units of measurement and properties of common materials found in building services.

LO2 Practical tasks. Set recording equipment to correct parameters and record all measured units and results in the correct format. This will be recorded by the assessor in workbook.

LO3 Practical assessment requiring the testing of electrical circuits and pipework installations. Results recorded in workbook

Types of evidence

LO1 Completed written assignment

LO2 and **LO3** Observation of practical task and recorded data

LO2 and **LO3** Completed workbook.

Delivery guidance

The purpose of this unit is to introduce the learner to the scientific principles that underpin the processes carried out during usual building services operations. The unit must be contextualised to ensure the learners understand the importance of the key principles and how they impact on their practical applications. The unit has a theoretical content but with careful planning, much of the subject content can be delivered in a workshop in the form of practical demonstrations and explorations. Lecturers can assemble simple experiments using examples from science resources accessible on line through educational web sites or self-devised examples based on existing resources. Learners will be encouraged to interpret results of demonstrations and discussions should be facilitated around how findings affect Building Services systems.

Learners will be encouraged to use the correct S.I units when referring to scientific measurements but also made aware of conversion factors into imperial units as they will often encounter both in the work place. They will learn about properties of materials such as metals, plastics, and water and the calculations involved in the relationship between energy, heat and power. They will learn about principles of force and pressure including flow rate and the relationship between velocity, pressure and flow rate in systems. They will learn about simple mechanical principles and their application as well as the principles of electricity as they relate to building services such as magnetism and electron flow theory. They will learn how to perform electrical calculations and will study Ohm's law, and electrical circuits, for example.

Practical work will explore how to apply scientific principles and how to apply units of measurement accurately. The college's video resources will be utilised as they often provide simple explanations of what can be complicated concepts.

Learners will carry out straightforward testing of completed tasks and will learn how to interpret the results. This will include electrical and hydraulic testing of pipework, components and cables; visual inspections, hydraulic testing, pressure and flow rate testing, continuity checks, insulation resistance, polarity testing, and safe isolation, functional checks. When covering the testing aspect of the unit realistic, working systems will be used to ensure that learners see the context of the tests. The lecturer must be able to make alterations to the systems to give different readings. There must be an emphasis on interpretation of results and what impact they have on the system performance.

Appendices

Appendix I - Extenuating Circumstances Form

(Must be fully completed and accompanied by independent supportive evidence, e.g. a letter from your GP/doctor/counsellor on headed paper or other official document. The form and evidence must be sent to the Registry Department in Nightingale building AS SOON AS POSSIBLE after the circumstances begin. Retrospective claims received within 10 working days will only be considered if there are exceptional circumstances which prevent the early submission of a claim form.)

Name of candidate

HC number

Course name and year

Date circumstances started

Date circumstances ended

Assessment(s) affected (complete below)

Unit code	Unit tutor	Type of assessment (e.g. exam coursework, presentation)	Assessment deadline	Is this group work?
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Description of circumstances

Signature

Date

Appendix II - Candidate Appeal Form

(To be completed if informal Stage 1 appeal is unresolved)

Name of candidate

Name of assessor

Name of internal verifier

Date of assessment

Unit(s) assessed

Date appeal received

Date of Stage 1 decision

(within 5 working days of assessment decision)

Stage 1:

Assessment details

Candidate's reasons for appeal

Assessor decision

Candidate's signature and date

I agree with the decision: YES / NO

Assessor's signature and date

Stage 2:

Date appeal received by internal verifier

Internal verifier's comments and decision (within 10 working days of assessment decision)

Candidate's signature and date

I agree with the decision: YES / NO

Internal verifier's signature and date

Appendix III – Assessment Brief Template

ncfe.

**Progression Qualification
in**

Subject name here



Unit No. / Title

Assessment No.

Issue Date:

This work assesses:

Due Date:

In this assignment, you will **[continue writing vocational/technical scenario]:**

During this assessment you are also required to demonstrate **speaking and listening skills/ written communication skills/ mathematical skills [delete as appropriate]**

Learning Outcome 1: The learner will

Task 1:

Image here

Task details

[visual reinforcement to aid readability of assignment]

You must/ should/ could produce the following evidence:

- ✓ A written report
- ✓ A presentation
- ✓ A practical assessment

- ✓ These are just examples [delete as appropriate]

Learning Outcome 2: The learner will

Task 2: Delete if necessary

Task details Delete if necessary

Image here

You must/ should/ could produce the following evidence:

- ✓ A written report
- ✓ A presentation
- ✓ A practical assessment
- ✓ These are just examples [delete as appropriate]

Learning Outcome 3: The learner will

Task 3: Delete if necessary

Task details **Delete if necessary**

Image here

You must/ should/ could produce the following evidence:

- ✓ A written report
- ✓ A presentation
- ✓ A practical assessment
- ✓ **These are just examples [delete as appropriate]**

Grading Descriptors

Pass

Merit

Distinction

Appendix IV – Assessment Brief Internal Verification Template

ncfe. Progression Qualification in
Subject name here



VERIFICATION OF ASSESSMENT			
JPQ Title			
Unit No. / Title			
Assessor		Internal Verifier	
Assessment No.		Lead Verifier	
Verifier Checklist		Comments	
Are accurate qualification details shown?	Y/N		
Are accurate unit details shown?	Y/N		
Are clear deadlines for assessment given?	Y/N		
Is the timescale for the assessment appropriate?	Y/N		
What are the Learning Outcomes being assessed?			
Do the grading descriptors identified match the Learning Outcomes being assessed?	Y/N		
Are the appropriate English and maths skills identified on the assessment?	Y/N		
Will the tasks enable the learner to generate sufficient evidence to be assessed against the range of grading descriptors?	Y/N		

Is the language and presentation used accessible to most learners?	Y/N	
Are the tasks set appropriate for most learners' current and expected level of knowledge/skill?	Y/N	
Is it possible to authenticate the learner's individual evidence through this assessment?	Y/N	
Is the method of assessment reliable?	Y/N	
Overall, is the assignment fit for purpose?	Y/N*	
*If 'No' is recorded and the Verifier recommends remedial action before the brief is issued, the Assessor and the Verifier should confirm that the action has been undertaken		
Assessor signature		Date
Verifier signature		Date
Lead Verifier signature (if required)		Date
Agreed remedial action required/taken		
Assessor signature		Date
Verifier signature		Date
Lead Verifier signature (if required)		Date

Appendix V– Internal Verification Template for Assessment Decisions

ncfe.		Progression Qualification in <i>Subject name here</i>			
VERIFICATION – ASSESSMENT DECISIONS					
JPQ Title					
Unit(s)					
Assessor		Internal Verifier			
Assignment No.		Lead Verifier			
Name of Learner <small>(For larger samples, please add rows or use additional sheets)</small>	Submission Type <small>(First, Resubmission, Retake)</small>	State grade awarded	Assessment Decision Accurate (Y/N)	Comments	

VERIFIER CHECKLIST		Please give reasons for responses including evidence of judgements and good practice.
Is the assessed evidence valid? (Reflect current standards, practice/assessment requirements?)	Y/N	
Is the assessed evidence authentic? (Confirmed by both the learner and assessor?)	Y/N	
Is the assessed evidence current? (Produced, submitted and assessed within a relevant time frame?)	Y/N	
Is the assessed evidence sufficient? (Evidence matches the assessment outcome?)	Y/N	
Is the assessed evidence reliable? (Judgements consistent across all learners, over time and across levels?)	Y/N	
Does the feedback from the assessor confirm achievement?	Y/N	
Is the feedback constructive? (Clearly outline what has been done well, how to improve and clear targets set?)	Y/N	
Does the feedback address the English and maths needs of the students? (e.g. spelling, grammar and punctuation corrected using agreed approach; maths framework used)	Y/N	

Any actions required must be reviewed across the whole cohort.

Action Required	Target Date for Completion

I confirm that the assessment decisions are accurate, there is no evidence of assessment malpractice and any action points have been addressed and completed in respect of the whole cohort.

Verifier signature		Date	
Assessor signature		Date	
Lead Verifier signature (if appropriate)		Date	