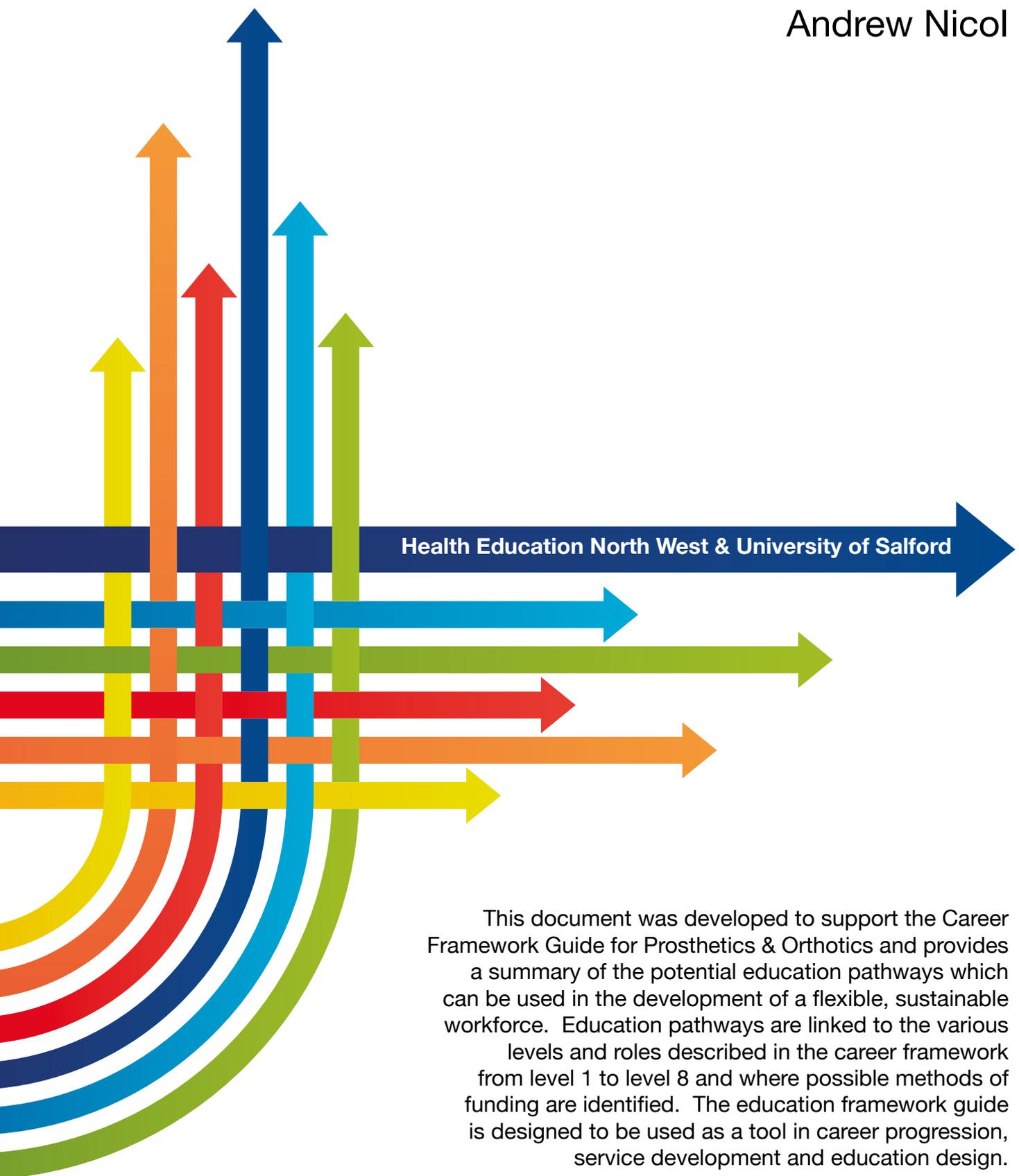
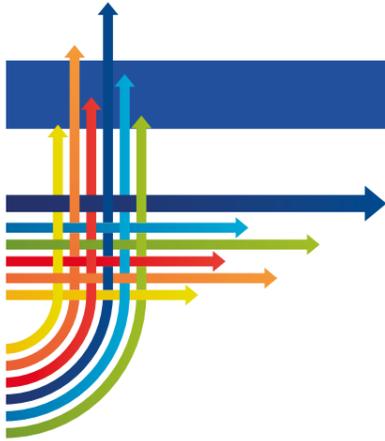


# Education Framework Guide

## Prosthetics & Orthotics

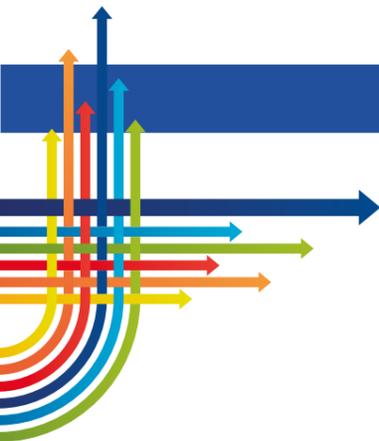
Andrew Nicol





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Government policy from all four countries has identified the need to provide improved services and examine how some outmoded bureaucratic, traditional and inflexible processes might be reduced. It has identified multi-professional working, new roles and more flexibility as essential for high-quality and patient-centred services. Within this rapidly changing environment, it is vitally important that professions remain flexible and adaptable and are able to demonstrate not only their unique clinical contribution but their overall contribution to effective integrated teams.

This framework is designed as a skills escalator, identifying potential education routes required to develop competences in a way that means each level is a step towards the next. In conjunction with the Career framework guide for Prosthetics and Orthotics, this framework provides a pathway for career progression, service development and education design.

The value of education is only realised when the knowledge gained is applied in improving the lives of patients. Whilst the skills escalator is a useful way of illustrating a possible pathway, it can't be assumed that for every individual, progression will be guaranteed or even necessary. Ultimately, a number of factors will

dictate the pace of progression and the route taken to a fulfilling career.

Commonly a workforce will have fewer opportunities for individuals to perform at the higher levels and Prosthetics and Orthotics is no different. The number

of individuals who want or are able to perform at the highest level is limited and gaining such a position extremely taxing.

Developing a flexible workforce that delivers high quality patient centred care, the changing needs of patients need to be understood, reacted to and services build around those needs.

By developing a career framework, individuals will find it easier to move between employers and in many cases will find that movement is a necessity in allowing career progression. The movement of staff from one service to another allows ideas and work practices to circulate and is extremely valuable, especially in a small specialised industry.

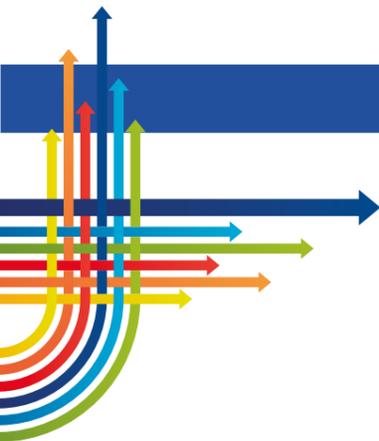
This education framework has been built to support the Prosthetics and Orthotics Career Framework Guide and describes the sources of education currently available to those already working within Prosthetics and Orthotics and those who wish to become involved. The Career Framework for Health is not linked to an education map, but does in its descriptions of behaviours and abilities indicate the levels of ability required to function at a level. Rather than be a definitive guide, this framework is intended to be a means of signposting how the career framework can be enabled through flexible education pathways.

There are gaps within the education framework, where formal education can be accessed to deliver the relevant competences described in the career framework guide. This document is a way of promoting existing opportunities for education and highlighting the gaps that remain.

Figure 1 - P&O Career & Education Framework

CPD	Short Courses	Doctoral Degree		Consultant Practitioner		8
		Masters degree		Advanced Practitioner		7
		PGDip PGCert		Senior/ Specialist		6
		BSc Hons		Practitioner		5
	Foundation degree, HND, Higher Apprenticeship	Senior Technician	Technical Assistant Practitioner	Assistant Practitioner		4
	NVQ Level 3, HNC, QCF, Advanced Apprenticeship	Technician		Healthcare Assistant		3
	NVQ level 2, QCF Intermediate Apprenticeship	Technician Assistant		Support Worker		2
		Cadet		Cadet		1





**Career Levels 1-4**

A number of career options are available for individuals differing slightly in format, and timescales. Recognising the value of different pathways and understanding that flexibility provides access to a more diverse group of people with complementary skills is important in developing the workforce. Prosthetics and Orthotics is fairly unique in the diversity of roles contained within the industry. Aspects of healthcare, engineering and textiles are all frequently required, meaning that three different sector skills councils (Skills for health, SEMTA and Creative Skillset) have a role to play. One pathway or qualification will not deliver the skills mix required and a flexible approach to both career progression and education has the potential to deliver individuals with a variety of complementary skills.

Career Levels 1-4			
4	Assistant Practitioner	Technical Assistant Practitioner	Senior Technician
3	Healthcare Assistant		
2	Support Worker	Tecnician Assistant	
1	Cadet		

**Career Level 1**

There are a limited number of jobs at career level 1 as this is the lowest level of skills and knowledge with very limited scope of practice. In healthcare professions, this level is used primarily as a basic entry grade level for those wishing to access a healthcare profession pathway in a skills escalator approach. The most relevant area in educational terms for career level 1 is to consider the use of cadet schemes and how these can support the career pathway.

Cadet schemes, although replaced by apprenticeships in many parts of the UK, offer a means of accessing NHS careers across a wide variety of professions, sometimes described as a 'taster experience' for young people considering a career in health. These schemes where available offer benefits in respect of attracting applicants from local communities, and enabling

individuals to have opportunity to experience a number of jobs and areas whilst on a structured cadet training pathway. The scheme will usually involve the cadet gaining work experience through rotation across several departments. Further details of this approach are available via NHS Employers, Local Education and Training Boards and other national agencies.

**Career Levels 2-4**

Career levels 2- 4 can commonly develop in two different pathways. Manufacturing roles can involve the production of footwear & leather goods, plastic and metal devices among other things. The wide variety of roles means that technical proficiency in one area or becoming multiskilled in a number of areas is possible over time. Role requirements can vary depending

on employers needs, fitting well with the model of vocational learning that allows individuals to develop within the workplace and in response to the requirements of the employer. The ability of employees to specialise or develop a wider range of skills can deliver a career that fits around an individual's abilities and aspirations.

HNC and HND level programmes for technicians have been developed by the University of Strathclyde in conjunction with NES which are UK approved. This aims to use work place learning, blended learning and weekly training sessions at regional centres to support sustainability for such a small and geographically spread workforce. The program is currently inactive, but there is potential for it to be adopted across the whole of the UK where it could be accessed by a wider group.

Other roles described between level 2 and 4 can involve providing a degree of assistance to a clinician within a healthcare environment. With an increasing expectation of direct patient contact as the levels increase, the knowledge base and abilities required become more demanding. Roles developed in these areas are done so in a service specific manner and to reflect a local need. Consequently the ability to

develop while remaining within the working environment means that again the flexibility of vocational learning can be used to develop individuals with skills that are wholly relevant to their role.

Education at levels 2-4 is supported by work based learning rather than the formal education required at higher levels. The requirement for formal learning does increase towards level 5, but the advantages of vocational learning can be felt most acutely at the earliest levels.

**Apprenticeships**

An apprenticeship is a work-based programme that combines practical training with study. An apprenticeship can take between one and four years to complete depending upon the level and anyone over the age of 16 can complete one. Study normally involves one day per week, but during other days the apprentice is able to work alongside experienced staff developing work specific skills and earning a wage.

Tuition costs are fully met those aged between 16 and 19, but are reduced to 50% between 19 and 24. Small to medium sized employers may be eligible for a £1,500 grant per

apprentice in addition to the tuition costs.

**Levels of Apprenticeship**

There are 3 levels in England:

- Intermediate – equivalent to 5 GCSE passes
- Advanced – equivalent to 2 A level passes
- Higher Apprenticeships – lead to NVQ Level 4 or Foundation Degree

As apprenticeships are linked to vocational qualifications, QCF qualifications in leatherwork and footwear as well as the QCF qualifications in healthcare are all suitable (figure 2).

There are currently no recognised training courses below foundation degree level that link to the NOS required of a prosthetic or orthotic technician, not covered by the footwear and leatherwork NVQs. This is regrettable and existing practice is to access engineering apprenticeships that are not wholly relevant. The introduction of a competence based career framework. Will increase the simplicity of learning design and may help to fill this gap.

Figure 2. Relevant Apprenticeship Frameworks. (Source Apprenticeship Frameworks online, 2013)

Title	Issuing Body	Level	Level
Clinical Healthcare Support	Skills for Health	Intermediate & Advanced	QCF 2 & QCF 3
Allied Health Profession Support	Skills for Health	Advanced	QCF 3
Health & Social care	Skills for Health	Intermediate & Advanced	QCF 2 & QCF 3
Healthcare Support Services	Skills for Health	Intermediate & Advanced	QCF 2 & QCF 3
Fashion & Textiles	Creative Skillset	Intermediate & Advanced	QCF 2 & QCF 3
Assistant Practitioner	Skills for Health	Higher	QCF 5 & Foundation degree

## Useful Links

England	Skills Funding Agency	<a href="http://www.skillsfundingagency.bis.gov.uk">www.skillsfundingagency.bis.gov.uk</a>
Wales	Welsh Assembly Government	<a href="http://www.wales.gov.uk">www.wales.gov.uk</a> & <a href="http://www.daqw.org.uk">www.daqw.org.uk</a>
Northern Ireland	Department for Employment and Learning	<a href="http://www.delni.gov.uk">www.delni.gov.uk</a>
Scotland	Skills Development Scotland	<a href="http://www.skillsdevelopmentscotland.co.uk">http://www.skillsdevelopmentscotland.co.uk</a>

## Vocational Qualifications

Vocational qualifications provide clear advantages for employees, employers and end service users in a number of ways. Critically, because the qualifications are vocationally based, time away from the workplace is reduced. Furthermore, the structures can build in complexity allowing for gaps in previous formal learning. The ability to recognise prior learning can be advantageous in that previous credits gained in formal learning may be carried forward and used to as part of another qualification. Perhaps more importantly, recognition of prior learning means that informal learning such as previous work experience can be used within certain structures to prove competency without an individual being expected to fulfil the full cycle of learning that would otherwise be needed. In a workforce where a career framework is newly introduced, recognising and valuing prior learning will be critical.

## National Occupational Standards (NOS)

*'NOS describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognised level of competence. They focus on what the person needs to be able to do, as well as what they must know and understand to work effectively.'*

*'They cover the key activities undertaken within the occupation in question under all the circumstances the job holder is likely to encounter.'*

(This definition is supported by UK Commission for Employment and Skills (UKCES) Skills for Health.)

## The Benefits of NOS

NOS are tools to help individuals, organisations and training providers to improve performance. They are useful for carrying out a wide range of activities some of which are described below.

- They describe the minimum standard to which an individual is expected to work in a given occupation
- Set out a statement of competence which bring together the skills, knowledge and understanding necessary to do the work
- Provide managers with a tool for a wide variety of workforce management and quality control
- Offer a framework for training and development
- Description of learning outcomes and skills that applies across disciplines
- Form the basis of Vocational Qualifications (VQs) on the Qualification and Credit Framework (QCF) and Scottish Vocational Qualifications (SVQs).

Figure 3. Source: Skills for Health, 2013

Benefits to Employers	Benefits to Employees	Benefits to Training and Education Providers
Improve quality of goods and services	Create a checklist to measure your performance	NOS will identify learning and skills needs and act as a basis for qualifications
Increase productivity	Identify professional development needs and help career progression	To create units of learning
May reduce costs for recruitment by standardising the selection and interview process of employees	Accumulate evidence that could be used to obtain a qualification	Make programmes more relevant to employer's needs
Provide a means for better workforce planning	Increase mobility within the Health sector.	Provide clear goals for structured learning & define learning outcomes
Help identify and fill skills gaps		NOS enables providers to identify gaps in provision
Act as a benchmark for rewarding experience, knowledge and competence		

As these standards form the basis for vocational qualifications, a discipline using staff from across the educational spectrum needs to use the standards as a common currency. As higher education institutions do not use NOS the requirements of graduate performance have been described using NOS. This is an interpretation that can be used to show career progression and clarify the capabilities of individuals relative to one another. The value of this can be realized in a number of ways, but there are areas in which this could be highly beneficial for Prosthetics and Orthotics.

- A structured development of AHP assistant roles with clear boundaries of practice and distinction of roles and responsibilities
- Greater understanding of clinician value for service commissioners
- Improved identification of education gaps for education commissioners
- Clearer pathways for career progression

## Qualification and Credit Framework (QCF)

Based on national occupational standards, QCF qualifications provide competence in a flexible manner across numerous roles. These qualifications have replaced NVQs as the format for vocational qualifications in England, Wales and Northern Ireland.

QCF units differ from NVQ units because rather than knowledge and criteria statements, a QCF unit contains learning outcomes. By assigning each unit a credit and a level the units become more transferable, allowing individuals to gather credits as they move towards full qualification.

Rules of combination are unique to each qualification and qualifications will contain both mandatory and optional units meaning that the same qualification can equip individuals for specific areas of working. Ref skills for health.

The size of a each QCF qualification is shown by its credit value. There are three size ranges of qualifications on the QCF: an award which has 1 to 12 credits, a certificate which has 13 to 36 credits and a diploma which has 37 credits or more. A credit represents 10 hours of learning. The size of other qualifications is indicated by the number of guided learning hours typically needed to complete a qualification.

Figure 4. Technican training courses. Source: Ofqual 2013

NVQ (QCF) Qualifications Directly Applicable to Prosthetics and Orthotics	
Level 2	Level 3
Certificate in Footwear and Leather	Certificate in Footwear and Leather

### Healthcare Support Workers

Currently in existence are 5 different QCF qualifications with a possible application within Prosthetics and Orthotics. The learning outcomes offered could be used to deliver individuals with the competences described in the Prosthetics and Orthotics career framework at level 2 (support worker) and level 3 (Healthcare assistant). Because of the ability to choose optional units, this model of education can be used to produce an individual with the skills needed within their own services.

These qualifications are available from a multitude of providers and because of their vocational structure, limit the time spent away from work.

Figure 5. QCF HCSW qualifications. (Source: Ofqual, 2013)

QCF Qualifications Directly Applicable to Prosthetics and Orthotics	
QFC Level 2	QFC Level 3
Certificate in Healthcare Support Services	Diploma in Allied Health Profession Support
Diploma in Clinical Healthcare Support	Diploma in Clinical Healthcare Support
	Diploma in Healthcare Support Services

### Scottish Vocational Qualifications

Scottish Vocational Qualifications (SVQs) are flexible qualifications delivered in the workplace or settings that replicate the work environment. There are SVQs at different levels, ranging from 1 to 5, depending on the sector. This allows learners to study at a level that's appropriate to their job role and level of experience, and progress accordingly.

Assessment of SVQs is evidence-based, although other methods of assessment are available for different components, where appropriate. This qualification is a package of learning, training and practical work gained whilst employed.

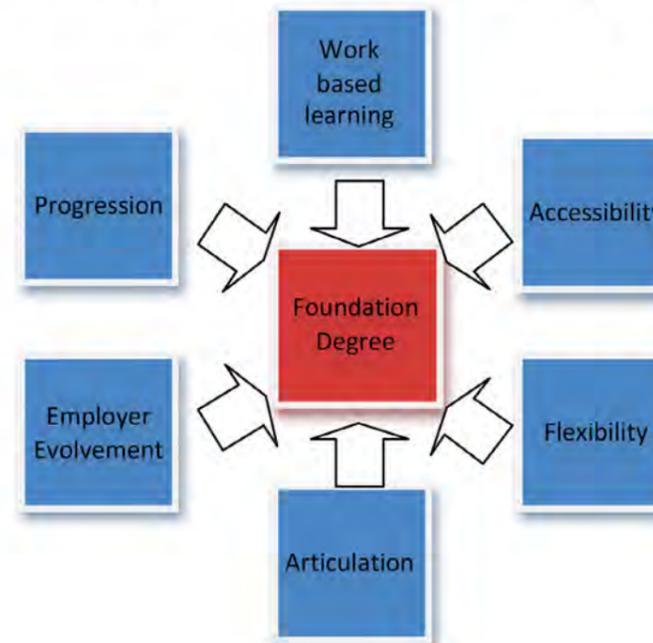
Figure 6. SVQ HCSW qualifications. (Source: Ofqual, 2013)

SVQ Applicable to Prosthetics and Orthotics	
SCQF Level 6	CQF Level 7
SVQ 2 Health and Social Care	SVQ 3 Healthcare Support (Clinical)
SVQ 2 Healthcare Support (Clinical)	SVQ 3 Health and Social Care (Adults)

Figure 7. Foundations degree attributes.

Source: Quality Assurance Agency for Higher Education, 2013

### Distinct Elements of a Foundation Degree



### Foundation Degrees

The Foundation Degree is a higher education qualification which has been established in order to provide new opportunities for vocational progression in a way which is both academically rigorous and employment related. FDs, therefore, integrate academic with work-based learning and are characterised by close collaboration between learning providers and employers in design,

development and delivery of the award. In many cases 80% of the learning is undertaken in the work place meaning that the training relates very much to the needs of individual services.

One slight disadvantage of a foundation degree is that there is no ability to recognise prior learning, other than as an entry requirement. To some

degree this reduces the flexibility of this form of education, as the timescales required to complete the process, can never be reduced.

In many cases and as part of the original concept behind foundation degrees, the initial qualification should feed into an advanced position within a bachelor level course. Whilst established foundation degrees may be used as an entry requirement for a full degree

in Prosthetics and Orthotics, there is currently no way of reducing the time required to complete a Bachelor level degree after studying for a foundation degree.

### Health and Social Care Foundation Degrees

Foundation degrees in health and social care are a well established way of delivering individuals at level 4 and have been utilised by many areas of healthcare in service changes that utilise assistant practitioners. This type of qualification is provided by a wide array of HEIs and can easily be accessed on a regional basis. Hundreds of places are commissioned on behalf of other healthcare professions in every region.

This qualification should allow an individual to work in an assistant practitioner role (level 4) in support of a registered Prosthetist or Orthotist. This type of training does not focus on the manufacturing aspects of Prosthetics and Orthotics, but instead develops clinical skills relating to interaction with patients in clinical areas

The flexibility of this education format allows the development of modules relating specifically to Prosthetics & Orthotics which could be delivered as alongside the more generalised modules.

Figure 8 Education pathway for an Assistant Practitioner



## Kelly Healthcare Support Worker

Kelly has a wide range of experience having worked in health and social care for the 10 years. Her previous roles caring for and assisting working with the elderly, those with mental health problems and with young people mean that she is used to using her abilities in different ways.

She has used education to help her deliver care using vocational qualifications to provide a flexible core of knowledge and has been awarded national vocational qualifications at level 2, 3 and 4.

Kelly's role is flexible and she works between the Prosthetic and Orthotic clinics supporting the clinicians in preparation for casting.

Patients are assisted with dressing and Kelly works to improve the efficiency of clinics by ensuring that patients are helped to move between waiting areas and clinical areas.

Creating a bond with patients is important and the soft skills developed previously help to bridge the gap between patients and clinicians.

The foundation degree has allowed Kelly to develop her skills further in a way that can be specifically focused on the needs of service users. This model of learning means that Kelly plans to develop her abilities in a way that will allow her to provide more assistance helping to measure outcomes, and visit outreach clinics to meet patients before they attend the limb centre for the first time.

## Clinical Technology Foundation Degree

Individuals undertaking this qualification develop more specialist knowledge compared to the more generic foundation degrees, particularly in the following areas

- engineering design and manufacture
- applied human anatomy, physiology and biomechanics
- engineering materials
- engineering analysis
- the design processes

An individual practicing at this level would do so in support of a registered prosthetist or orthotist and within locally agreed protocols. Only

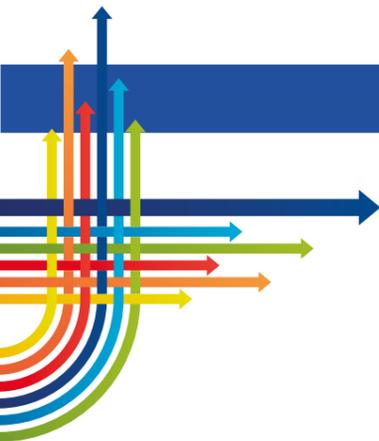
one course of this type is currently available and is run by London South Bank University.

**Link - <http://lsbu.ac.uk>**

## Funding

Local Education and Training Boards (LETB) are responsible for managing education and training investment to support national and local strategic priorities. Each LETB will have its own local structure for supporting career levels 1-4, and each will have its own local investment policy. Employers and individuals wishing to explore available funding streams are advised to contact their local LETB.

**Link - <http://hee.nhs.uk/>**



## Undergraduate Education

### Career Level 5

5 Practitioner Prosthetist/Orthotist

#### BSc Hons Prosthetics and Orthotics

Pre-Registration education delivers practitioners who are HCPC registered and would link into level 5 of the Prosthetic & Orthotic career framework guide.

Two HEIs provide education at this level, delivering a BSc Hons in Prosthetics and Orthotics. The University of Strathclyde provides a four year course and the University of Salford takes place over three years.

Both Courses provide extended clinical placements during the training period and interlink academic studies with the development of practical skills. Areas such as patient assessment, prescription, fitting, alignment, fabrication and outcome measurement are underpinned with in depth theoretical knowledge.

Provider	Web link
The University of Salford	<a href="http://www.salford.ac.uk/courses/prosthetics-and-orthotics">http://www.salford.ac.uk/courses/prosthetics-and-orthotics</a>
The University of Strathclyde	<a href="http://www.strath.ac.uk/prosthetics/">http://www.strath.ac.uk/prosthetics/</a>

#### Funding

The University of Salford falls under NHS funding arrangements in England and the programme is commissioned by a lead LETB on behalf of all LETBs in England whilst places at the University of Strathclyde are funded directly by the Scottish Government Health Directorate

Student tuition fees at the University of Salford can be fully funded and Students may be eligible for the NHS Bursary Scheme, which they are able to apply for in accordance with their individual entitlement.

University of Salford students who

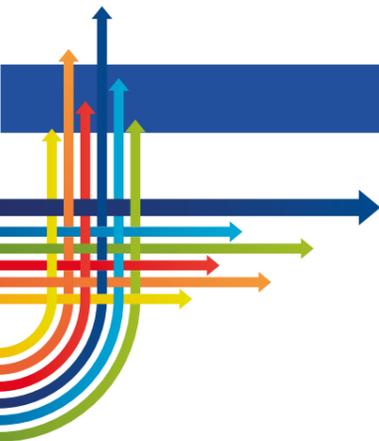
undertake integrated practice placements throughout the 3 years of the curriculum which are also subject to financial support.

#### Alternative Entry

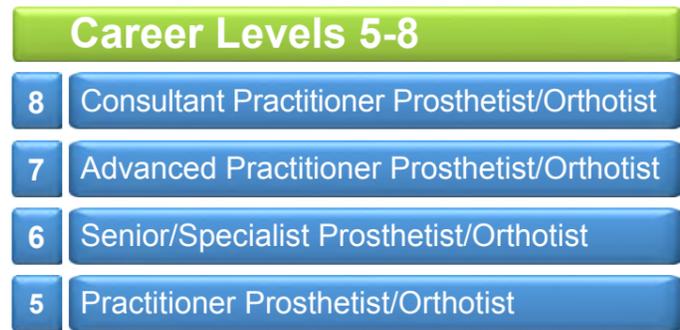
There are examples in many other professions of advanced entry for those with a suitable level of prior education. HND, HNC or foundation degree level education does in some other areas allow entry to the second or even third years of degree courses, but this is not currently the case in Prosthetics and Orthotics due to the specialist nature of both courses.

#### Accelerated Professional Registration

In other Allied Professions two year MSc level courses are available at a pre registration level which allows individuals to practice as an autonomous practitioner, slightly more quickly. This type of programme normally requires an applicant to have a recent 2:1 level bachelor level qualification. Again there is no ability to utilise this pathway in Prosthetics & Orthotics due to the low numbers of potential applicants.



Professional Development



Registration as a Prosthetist & Orthotist is in itself an achievement, but the value of the knowledge and abilities gained is only retained by the realignment of this knowledge base to new concepts, techniques and applications. Maintaining relevance is a minimum standard and is in itself an ongoing process which requires clinicians to compare their own abilities to the needs of their patients. As with all areas of this framework continual professional development is an expectation of all individuals, but post registration, it is a necessity.

Improving quality of care and service delivery requires clinicians to understand a specific need, explore solutions and provide a response. This process can only be completed through research, education and innovation, the specific emphasis placed on each area being dictated by the complexity of the task in question and the learning required to deliver the required outcome.

Learning can take many forms and each individual needs to ascertain the most effective means of developing themselves. From using reflective practice to review clinical practice to developing highly advanced theoretical knowledge emerging at the very edge of research, the value of the activity is derived from its application and the improvements

made to services and lives.

By developing skills and abilities that align to strategic objectives, clinicians can have fulfilling careers providing high quality care within innovative services.

Post Registration Education

Preceptorship

Preceptorship programs have been successfully used in nursing and by some AHPs, most notably Occupational Therapy to manage the transition phase between registration and becoming a confident, fully self sufficient clinician. Building on the knowledge already gained a preceptorship program provides a formal structure within which a more senior clinician can help provide clinical context and support through the first phases of professional self development.

This process instils professional values in a clinical context, furnishing new clinicians with the skills and abilities required to develop further and allow their knowledge and abilities to be applied in improving outcomes and developing services.

Funding for preceptorship programmes, as part of the funding available to all AHPs, midwives and nurses, is available nationally and should be accessed at a local level.

Continual Professional Development

Continual professional development must always retain reflective practice at its heart. Through analysing performance and identifying knowledge gaps all HCPC registered AHPs are expected to improve their practice. This is also a way to demonstrate the effective application of new knowledge. Areas of progression most acutely required after level 5 are education, leadership as well as learning & research. Different pathways allow clinicians to focus in certain areas, but the general accumulation of these abilities is still required.

Investment mechanisms do exist at local levels and each LETB works to support supporting CPD in different ways. Employers and employees should seek information at local level for what support might be available

Short Courses

Training in specific areas, ideas or techniques is provided by a broad spectrum of HEIs, BAPO, and commercial suppliers of prosthetic and orthotic equipment. Targeted correctly the use of such courses can meet the needs of clinicians and employers in an efficient manner. As ever the use of this type of education is of most value when accessed as part of development processed or to meet a specific service need.

Inter-professional Learning

The limitations of a small profession mean that education cannot be provided in every locality. It should be recognised that other, larger AHPs use a more numerous and widely spread network of HEIs who can deliver education with direct clinical applications within Prosthetics and Orthotics that do not mean a realignment of “normal” practice. Utilising these existing resources more effectively will be key to developing the workforce.

In the development of an advanced

practice clinician the use of a wider sphere of education is essential in moving beyond the boundaries of standard practice. The use of inter-professional learning will be vital in ensuring career progression with a focus across all AHPs on the development of both clinical and professional leaders.

Clinical Education

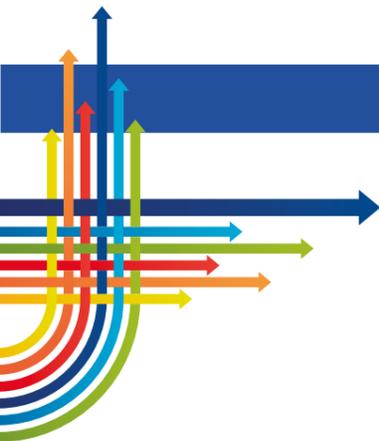
Within the P&O career framework there is a natural increase in the requirement for the levels of support provided to others in improving their abilities. There is very quickly an obligation to provide support for those at lower levels and as requirements move beyond the most basic, so the need for further specific training and education increases.

Within a number of other AHP’s there are recognised programs for certifying the quality of pre registration clinical educators. At this time there is no such process within Prosthetics and Orthotics, but there is certainly value in ensuring that education is delivered at an agreed standard through this type of process. This would also mean that competence in delivering pre registration education could be demonstrated.

Since 2011 the University of Strathclyde and worked with Glasgow Caledonian University to provide multi professional clinical educators training that aligns with APPLE and ACE accreditation schemes for Occupational Therapy and Physiotherapy. The day long courses have a morning of generic content and an afternoon of profession specific learning. This programme has been developed in other sites across Scotland so that all 4 providers of AHP education share the responsibility for AHP placement clinical educators. This innovative and flexible way of working ensures that synergies are exploited, but specialist areas are still valued. Programs have been run

for individual employers who wish to train multiple staff members in a specific location.

A similar position exists within post registration education where the role of preceptors will be vital in ensuring a smooth introduction to professional working. Support of staff delivering preceptorship in familiarising themselves with the process will be important, if the real value of the process is to be realised.



### Advanced Practice – Level 7

The advanced practitioner is a role developed in reaction to a specific service requirement. The development of each individual will require a multitude of different learning experiences that focus on four areas.

The advanced practitioner is indicatively linked to Master s level education. Across the four pillars of advanced practice (figure 8) there is a need for high level understanding

demonstrated in the ability to improve services. The exact weighting required in each area is dictated by each individual role. The flexibility required of those who wish to practice at this level can be met modules specified to deliver specific aims and lead to the delivery of an advanced practitioner.

The use of blended learning is potentially extremely effective at this level as it can be used to deliver tailored education that can subsequently be applied to an individual's specific work area.

The use of E-Learning to access education, at times which suit the individual and employer, can deliver a more efficient process than traditional models.

### Masters Level Education

Distinct Masters level programs are available in Prosthetics and Orthotics. These are taught at the University Salford and the University of Strathclyde within the UK. The specialist knowledge provided by these institutions is of significant note to those who wish to develop specialist skills unique to Prosthetics & Orthotics.

A separate MSc is available immediately following the initial BSc hons at the University of Strathclyde which takes place over 5 years, one year more than the BSc.

Also available at Strathclyde is the MSc in Prosthetics and Orthotics, with an alternative, Post Graduate Certificate and Post graduate diploma. The module based format allows the each individual to lean to the level they feel best reflects their needs.

Accessing education that is close to home can reduce time away from work and can help to make what can be a busy and challenging time slightly less stressful.

Multi professional learning is widely available and courses with clinical applications to P&O can be accessed through HEIs that are more commonly associated with other allied health professions. It is widely accepted that advanced practice can involve the blurring of lines between professions and pushing the boundaries of existing roles. In this respect multi professional learning can be thought of as an advantage.

Education in leadership and management can be accessed on a regional basis and may be funded at a local level. Depending on the individual and the path they wish to pursue, management training specific to healthcare or in more general management areas should be considered.

consultant practitioner roles and it is envisaged that individuals may be described as working at level 8 by demonstrating other aspects of the abilities described in the Career Framework guide.

The role of consultant practitioner is not one that has been seen in Prosthetics & Orthotics yet. There are reasons, such as the specialist nature of the professions and the relatively small workforce, for this lack of progress, but patient groups are keen to see Prosthetic and Ortotic service lead by the most highly qualified and expert individuals possible.

The overarching nature of the consultant practitioner role means that many smaller services will never require this level of professional, but there are larger departments and commercial employers to whom the most highly developed Prosthetists and Orthotists could deliver real improvements to the lives of service users.

seen at lower levels, the consultant practitioner leads others, designs, initiates and oversees far reaching research programs. The depth of knowledge and ability to understand the research process alongside development of services is a key differentiator, which can only truly be delivered with an extremely high level of academic achievement.

### Education Models

Many HEIs provide modules that can be used in isolation as part of CPD, but can also be used to form part of a postgraduate qualification. This very much fits with the skills escalator model that is used in the P&O career framework guide and allows clinicians to develop in a service specific manor.

Traditional models of education have become more difficult to deliver due to the reduced ability of clinicians to spend time away from clinic. Other modes of education, such as blended learning, with some face to face learning and some internet driven work packages need to be developed and utilised more frequently.

E-Learning for healthcare (<http://www.e-lfh.org.uk/home/>) an online tool that delivers high quality training content for healthcare professionals in a flexible manor.

Figure 9. Advanced practice pillars of practice. (Adapted from: National Leadership and Innovation Agency for Healthcare, 2010)



The University of Salford	The University of Strathclyde
BSc hons in Prosthetics & Orthotics	BSc hons in Prosthetics & Orthotics
	MSc in Prosthetics & Orthotics
	MSc in Prosthetic and/or Orthotic rehabilitation studies
	1 year research degrees - MPhil, MRes
	3 year research degrees - Phd
	4 year research degrees – EngD Medical devices

### Consultant Practitioner – Level 8

This level is indicatively linked to a Doctoral level of education, showing significant abilities in generating research that is used to developing services , with a significant emphasis on the education of others.

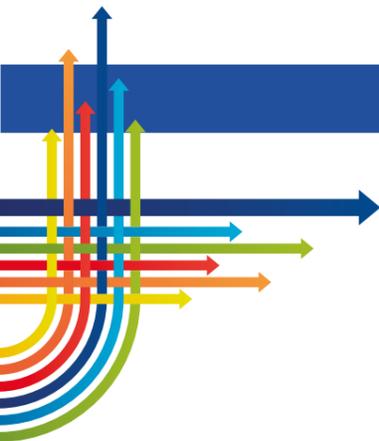
All level 8 roles are not necessarily

### Doctoral Level Education

The consultant practitioner is expected to deliver extremely high level working in a number of directions, but the largest step change is perhaps the expectation in the area of research and development. Rather than simply generating research in isolation, as is

Figure 10. Consultant Practitioner key functions. (Adapted from: National Leadership and Innovation Agency for Healthcare, 2010)





### Academic Development

It is vital that link between education and clinical areas is maintained. Especially in smaller professions changes to the work force could result in the loss of academics and there is therefore a need to provide support by providing high quality clinicians with research skills.

The National Institute for Health Research (NIHR) has developed the clinical academic training pathway which aims to help those who wish to develop their academic careers. The pathway operates at four different levels and allows clinicians to remain clinicians whilst developing academic skills. By bridging the gap between academia and clinical practice it is believed that research findings will be applied more readily and that and the research will more relevant to the needs of services.

(Figure 11. The National Academic Training Pathway. Source: NHS Institute for Health Research, 2013)

National Clinical Academic Training Pathway			
<a href="http://www.nihrtcc.nhs.uk/cat/">(http://www.nihrtcc.nhs.uk/cat/)</a>			
Masters in Clinical Research	Clinical Doctoral Research Fellowship	Clinical Lectureship	Senior Clinical Lectureship

The pathway is open to Nurses Midwives and AHPS who work within the NHS. Funding can be available for both the cost of education and the salary costs of the applicant. For those who wish to develop in areas of research and education this pathway can be hugely valuable.

### Orthotic Education and Training Trust

This trust exists to provide funding for the training and education of orthotists within the UK. Primarily focusing on post registration training the trust provides financial support frequently assists clinicians in attending short courses, but does fund longer term education programmes on occasion. (<http://www.oett.org.uk>)

### Project Governance

This preceptorship guide has been developed as part of the Prosthetic and Orthotic Workforce and Education Project and is designed to work alongside the P&O Career Framework guide and the P&O Education Guide.

The structure and quality assurance arrangements for this project include:

- A Project Board
- A National Reference Group

### Project Board

This project was supported by a project board that comprised of the British Association for Prosthetists and Orthotists, the British Healthcare Trade Association, University of Salford as the sole provider of pre registration P&O education in England and Health Education Northwest who are responsible for commissioning pre registration education for England, Wales and Northern Ireland.

The project board worked to support the project manager in ensuring that work streams were delivered on

time and to specification. The board ensured that risks were managed and that financial targets were met. A full list of project board members is included in the acknowledgments.

The project board met 3 times over the progression of the project.

### National Reference Group

The project reference group comprised of patient user group representatives,

The National Reference Group was a network of stakeholders including service users, clinicians, service managers, employers, educators and supporting organizations whose main role was to ensure that:

- The content of the product was right;
- The product had good face validity among relevant stakeholder constituencies;
- The product was fit for purpose; and
- The product was able to be implemented.

The National Reference Group met 3 times over the progression of the project.

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<b>Alison Barlow</b>	University of Salford
<b>Steve Mottram</b>	Chair of BAPO

National Reference Group	
<b>Adrian Stenson</b>	Blatchford's Clinical Services
<b>Adrian Swift</b>	Centre for work force intelligence
<b>Alison Barlow</b>	University of Salford
<b>Beth Foreman</b>	Blatchford's Clinical Services
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## Level 2 Health Care Support Worker Training

Level 2 Certificate in Healthcare Support Services		
Qualification Number	Qualification Type	Title and Provider
600/1543/3	QCF	Agored Cymru Level 2 Certificate in Healthcare Support Services (QCF)
600/6216/2	QCF	CACHE Level 2 Certificate in Healthcare Support Services (QCF)
501/2124/8	QCF	City & Guilds Level 2 Certificate in Healthcare Support Services (QCF)
501/1768/3	QCF	Edexcel Level 2 Certificate in Healthcare Support Services (QCF)
501/1895/X	QCF	EDI Level 2 Certificate in Healthcare Support Services (QCF)
600/1290/0	QCF	NCFE Level 2 Certificate in Healthcare Support Services (QCF)

<http://register.ofqual.gov.uk>

Level 2 Diploma in Clinical Healthcare Support		
Qualification Number	Qualification Type	Title and Provider
600/1542/1	QCF	Agored Cymru Level 2 Diploma In Clinical Healthcare Support (QCF)
600/6415/8	QCF	CACHE Level 2 Diploma in Clinical Healthcare Support (QCF)
501/2282/4	QCF	City & Guilds Level 2 Diploma in Clinical Healthcare Support (QCF)
501/1765/8	QCF	EDEXCEL Level 2 Diploma in Clinical Healthcare Support (QCF)
501/1897/3	QCF	EDI Level 2 Diploma in Clinical Healthcare Support (QCF)
600/1160/9	QCF	NCFE Level 2 Diploma in Clinical Healthcare Support (QCF)
600/2603/0	QCF	Skillsfirst Level 2 Diploma in Clinical Healthcare Support (QCF)

<http://register.ofqual.gov.uk>

## Level 3 Healthcare Support Worker Training

Level 3 Diploma in Allied Health Profession Support		
Qualification Number	Qualification Type	Title and Provider
600/1800/8	QCF	Agored Cymru Level 3 Diploma In Allied Health Profession Support (QCF)
501/1785/3	QCF	City & Guilds Level 3 Diploma in Allied Health Profession Support (QCF)
501/1763/4	QCF	EDEXCEL Level 3 Diploma in Allied Health Profession Support (QCF)

<http://register.ofqual.gov.uk>

Level 3 Diploma in Healthcare Support Services		
Qualification Number	Qualification Type	Title and Provider
600/1643/7	QCF	Agored Cymru Level 3 Diploma in Healthcare Support Services (QCF)
600/6218/6	QCF	CACHE Level 3 Diploma in Healthcare Support Services (QCF)
501/2235/6	QCF	City & Guilds Level 3 Diploma in Healthcare Support Services (QCF)
501/1767/1	QCF	EDEXCEL Level 3 Diploma in Healthcare Support Services (QCF)
501/1896/1	QCF	EDI Level 3 Diploma in Healthcare Support Services (QCF)
600/1307/2	QCF	NCFE Level 3 Diploma in Healthcare Support Services (QCF)

<http://register.ofqual.gov.uk>

Level 3 Diploma in Clinical Healthcare Support		
Qualification Number	Qualification Type	Title and Provider
600/1754/5	QCF	Agored Cymru Level 3 Diploma In Clinical Healthcare Support (QCF)
600/6215/0	QCF	CACHE Level 3 Diploma in Clinical Healthcare Support (QCF)
501/2236/8	QCF	City & Guilds Level 3 Diploma in Clinical Healthcare Support (QCF)
501/1779/8	QCF	EDEXCEL Level 3 Diploma in Clinical Healthcare Support (QCF)
501/1894/8	QCF	EDI Level 3 Diploma in Clinical Healthcare Support (QCF)
600/1161/0	QCF	NCFE Level 3 Diploma in Clinical Healthcare Support (QCF)
600/2534/7	QCF	Skillsfirst Level 3 Diploma in Clinical Healthcare Support (QCF)

<http://register.ofqual.gov.uk>

Level 2 Technician Training

Level 2 Diploma in Footwear and Leather		
Qualification Number	Qualification Type	Title and Provider
500/6482/4	NVQ QCF	ABC Level 3 Certificate in Footwear and Leather (NVQ) (QCF)
600/4137/7	NVQ QCF	Edexcel Level 3 NVQ Certificate in Footwear and Leather (QCF)

<http://register.ofqual.gov.uk>

Level 3 Technician Training

Level 3 Diploma in Footwear and Leather		
Qualification Number	Qualification Type	Title and Provider
600/4139/0	NVQ QCF	Edexcel Level 2 NVQ Certificate in Footwear and Leather (QCF)
500/6572/5	NVQ QCF	ABC Level 2 Certificate in Footwear and Leather (NVQ) (QCF)

<http://register.ofqual.gov.uk>

Ofqual Education Comparison Framework

Level 2 Diploma in Footwear and Leather			
Level	NQF Qualifications examples	QCF Qualifications examples	Framework for Higher Education examples
Entry	Entry level certificates Skills for Life at Entry level	Entry level VQs: Entry level awards, certificates and diplomas Foundation Learning Tier pathways Functional Skills at Entry level	
1	GCSEs graded D-G NVQs at level 1 Key Skills level 1 Skills for Life Foundation Diploma	Level 1 VQs: BTEC awards, certificates and diplomas at level 1 Functional Skills level 1 OCR Nationals Foundation Learning Tier pathways	
2	GCSEs graded A*-C NVQs at level 2 Level 2 VQs Key Skills level 2 Skills for Life Higher Diploma	Level 2 VQs: BTEC awards, certificates and diplomas at level 2 Functional Skills level 2	
3	AS/A levels Advanced Extension Awards International Baccalaureate Key Skills level 3 NVQs at level 3 Cambridge International Awards Advanced and Progression Diploma	Level 3 VQs: BTEC awards, certificates and diplomas at level 3 BTEC Nationals OCR Nationals	
4	NVQs at level 4 Key Skills level 4 Certificates of higher education	Original NQF Level 4* Level 4 VQs: BTEC Professional Diplomas, Certificates and Awards	Certificates of higher education
5	Higher national diplomas Other higher diplomas NVQs at level 4*	Level 5 VQs: HNCs and HNDs BTEC Professional Diplomas, Certificates and Awards	Diplomas of higher education and further education, foundation degrees and higher national diplomas
6	National Diploma in Professional Production Skills NVQs at level 4*	Level 6 VQs: BTEC Advanced Professional Diplomas, Certificates and Awards	Bachelor degrees, graduate certificates and diplomas
7	Postgraduate certificates and diplomas BTEC advanced professional awards, certificates and diplomas Fellowships and fellowship diplomas Diploma in Translation NVQs at level 5*	Original NQF Level 5* Level 7 VQs: Advanced professional awards, certificates and diplomas	Masters degrees, postgraduate certificates and diplomas
8	NVQs at level 5*	Level 8 VQs: Award, certificate and diploma in strategic direction	Doctorates

(Qualification Framework for England and Wales. Based on Comparison of qualification levels between the NQF and QCF frameworks. Source: Ofqual, 2013)

